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ABSTRACT

The 1st International Conference on Outdoor Education, 1972, was planned to provide a broad range of contacts and experiences for the delegates. Papers presented at this conference and reported in the Proceedings covered outdoor education for handicapped children and native children, residential programs, government role in outdoor education, curriculum development, teacher education, and environmental education. Lists of speakers and delegates were included, with a copy of the conference program. (PS)

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An International Conference in '72

"OUTDOOR EDUCATION – 'WITHOUT BOUNDARIES' "

PROCEEDINGS

Hosted By:

Council of Outdoor Educators of Ontario

September 28 – October 1, 1972

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TABLE OF CONTENTS

	PAGE
FOREWARD	A1
PROMISING FUTURE DEVELOPMENTS IN OUTDOOR EDUCATION	A3
SPECIAL PROGRAMME REPORT-CONFERENCE INSPIRATION-SUNDAY ON CHAPEL ISLAND	A5
INDIAN COUNCIL - HERITAGE NIGHT	A8
OUTDOOR EDUCATION AND THE FUTURE OF MAN	1
OUTDOOR EDUCATION FOR HANDICAPPED CHILDREN "ONE STEP BEYOND"	10
MAIN PURPOSES FOR USING THE OUT-OF-DOORS: SUMMARY AND CONCLUSION.	11
EDUCATION FOR THE CULTURALLY UNIQUE CHILD - THE NATIVE CHILD	12
EXPLORING A FOREST "A FIELD TRIP WITH 7-YEAR OLDS (7)"	15
OUTDOOR EDUCATION WITH PRIMARY DIVISION STUDENTS	22
ADVENTURE-CENTERED PROGRAMS IN SCHOOLS FROM THE MAINSTREAM OF OUTWARD BOUND	23
ADVENTURE PROGRAMS IN SECONDARY SCHOOLS - THE ATIKOKAN OUTERS	28
OUTDOOR EDUCATION IN GERMANY	37
RESIDENTIAL FIELD CENTRE PROGRAMS	42
PROVINCIAL PARKS AS OUTDOOR CLASSROOMS	48
OUTDOOR EDUCATION: ITS PROMISING FUTURE	52
GOVERNMENT PARKS SERVICES PROGRAMS	60
DAY CARE CENTRE PROGRAMS-FOREST VALLEY OUTDOOR EDUCATION CENTRE-SECURITY AND FREEDOM	64
RESIDENTIAL FIELD CENTRE PROGRAMS - THE ISLAND SCHOOL	71
RESIDENTIAL FIELD CENTRE PROGRAMMES	74
GOVERNMENT PARK SERVICES PROGRAMS FOR OUTDOOR EDUCATION-OUTDOOR EDUCATION IN CANADA'S NATIONAL PARKS	78
OUTDOOR EDUCATION PROGRAMS SPONSORED BY FORESTRY ASSOCIATIONS IN CANADA	86

ONE STATE'S APPROACH TO IN-SERVICE EDUCATION IN OUTDOOR EDUCATION 93

IMPLEMENTING OUTDOOR EDUCATION - A CURRICULUM DEVELOPMENT PERSPECTIVE 97

CURRICULUM DEVELOPMENT IN OUTDOOR EDUCATION 99

BUREAU OF SPORT, FISHERIES & WILDLIFE - ENVIRONMENTAL EDUCATION PROJECT 105

THE ROLES OF DEPARTMENTS OF NATURAL RESOURCES IN OUTDOOR EDUCATION 109

THE ROLE OF CANADIAN WILDLIFE SERVICES IN OUTDOOR EDUCATION 113

MINISTRY OF NATURAL RESOURCES INVOLVEMENT WITH OUTDOOR EDUCATION 120

THE PROFESSIONAL PREPARATION OF TEACHERS FOR OUTDOOR EDUCATION 126

PROFESSIONAL PREPARATION IN OUTDOOR EDUCATION 131

PROFESSIONAL PREPARATION IN OUTDOOR EDUCATION - IS IT REALLY NECESSARY? 136

NATURAL RESOURCES TECHNOLOGY 142

CONSUMER-OUTDOOR EDUCATION 153

TEACHING A BEGINNING ARCHER TO SHOOT 155

WHY THE EXCITEMENT ABOUT ENVIRONMENTAL EDUCATION? 158

THE ROLE OF ENVIRONMENTAL ORGANIZATIONS IN OUTDOOR EDUCATION 162

ENVIRONMENTAL LEARNING AND THE NATIONAL FORESTS 164

A SURVEY OF THE ROLE OF ENVIRONMENTAL ORGANIZATIONS IN OUTDOOR EDUCATION 168

THE SCHOOL NEIGHBOURHOOD AS AN EDUCATIONAL RESOURCE 170

THE SCHOOL SITE AS AN EDUCATIONAL RESOURCE

INSERVICE EDUCATION PROGRAMMES 178

IN-SERVICE PROGRAMMES OFFERED BY THE MINISTRY 179

IN-SERVICE PROGRAMS IN OUTDOOR EDUCATION 182

IN-SERVICE PROGRAMMES OFFERED BY OTHER AGENCIES 184

SPEAKERS	1-185
DELEGATES	Follows 185
CONFERENCE PROGRAMME	Follows 185
ACKNOWLEDGEMENTS	Follows 185

FOREWARD

It is always a difficult task to prepare Conference Proceedings, and this publication is no exception. Care must be exercised in representing fairly the nature and scope of an event so that even the non-attender recaptures something of the spirit of the original encounter. The committee has made a determined effort to fulfil that objective.

The 1st International Conference in Outdoor Education, 1972, deserves to be classified as a bold venture. The Planning Committee tried very deliberately to provide a broad range of contact and experience for the delegates. Moreover, this was done in as natural a setting for Outdoor Education as could be devised. The theme"Without Boundaries" was chosed to suggest that there were elements in the conference for everyone regardless of background and interest. It also implied that the issues which face the outdoor education movement cannot be restricted to one country or one continent.

As was conveyed by the Chairman to the members of the Planning Committee, "Never was there a group of people so committed, nor so determined to see a very difficult task done, and done well." In particular, special mention should be made of the Ontario Forestry Association, and David Allen, who was released by that organization to serve as the Executive Secretary of the conference.

For the following persons a similar tribute is well deserved by all the conference delegates as well as those who could not participate, but who will read these proceedings:

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PROMISING FUTURE DEVELOPMENTS IN OUTDOOR EDUCATION

Kirk Wipper

This is a summary of the points made in reference to a presentation on the theme "Promising Future Developments in Outdoor Education.

1. The outdoor education movement will become more and more action oriented. Up to this point the focus seems to have been in the "understanding" phase; the identification of issues relating to man and the natural physical environment and the analysis of those issues has been integrated into most outdoor education programmes. In the future, there will be more emphasis on helping participants to care, and then to act. Action will be directed to the correction of what has been abused and to the prevention of further abuse.

2. Leadership in the outdoor education movement will receive considerable attention. There is an urgent need for skill development in activities which are appropriate to outdoor education programmes, as well as adjusting methods for giving leadership to people in groups or as individuals in special situations and settings. In the former the matter of balance between safety and risk must be more seriously regarded,

3. The outdoor education movement has a variety of implications for leisure, both in reference to activity, and to the ecological consequences of the machines related to leisure activity. This will require an acceptance of a broader range of activity and experience not necessarily directly related to what has been referred to as curriculum-based content.

4. There will be need for a co-operative plan for facility use. The proliferation of sites and buildings for outdoor education becomes increasingly difficult in reference to financing and space demands, especially. Inter-county and intra-county sharing will be an attractive way of regarding resources, particularly those of a unique nature.

5. The outdoor education movement will be concerned with a much broader age group serving the needs of the coninuing education of adults, as well as children from kindergarten to matriculation.

6. There is a distinct possibility that foreign exchange programmes in which the physical environment of other lands will become significant and will form a part of the spectrum of activity and experience.

7. The outdoor education movement will more and more become a change agent in education in general. The learning climate developed through direct experience should have a profound affect on classroom procedures in the school of the future.

SPECIAL PROGRAMME REPORT
CONFERENCE INSPIRATION - SUNDAY ON CHAPEL ISLAND

Kandalore Staff

The theme was based on the all-conference title namely "Without Boundaries".

I once studied a poem in school about a man's quest for knowledge and truth. Speaking of a mountain as knowledge and truth, the man revealed that once he reached the peak,all he observed was "alps upon alps arise". Surely, this is one meaning of the phrase, "Without Boundaries". This title is a quest for knowledge, for truth, for love, for compassion, for respect, for faith. Today in this island chapel, we will look for a short time at just a few of the facets of the theme "Without Boundaries".

In order to maintain or even to attain this wonderful state of openness, man must be wary of his tendency to shut himself up; to close himself off from his natural surroundings and so, man must be aware of his potential not only to open himself up to, but also to close himself off from, the natural environment.

Voice 1 "Without Boundaries" to me is a freedom of the body, as well as of the mind".

Voice 2 "To me it suggests the limitless challenge of the out-of-doors, bounded by neither time, nor space, nor experience."

Voice 3 "To me, having an area without boundaries leaves me with the warm thought that I will have, my children will have and hopefully their children will have the time and the space to grow and to think".

Voice 4 "It suggests to me a challenge to all of us, a challenge to break down the boundaries which already exist between man and nature, between man and land and to prevent the growth of further boundaries.

PRESENTATION SUMMARY

The symbol of the flight of geese was selected because in their long journey down the length of the North

American continent, they recognize no boundary. When they return from their summer or winter homes, they seem to represent a call of hope for the future. Perhaps no better summary of this thought exists than is contained in the following verse paraphrased from "To a Waterfowl". It is a beautiful and comforting thought.

He who would from zone to zone
Guide they certain flight
Must, when I go astray
Slant my steps aright.

Following the singing of appropriate hymns and songs, the event was closed with the words of a modern song representing something of the challenge that faces outdoor educators.

I'd like to read you the words to a song that Tom Paxton wrote 2 years ago. It's meaning in this context may be obscure, but I think it has particular relevance to outdoor education without boundaries.

Whose garden was this?
It must have been lovely,
Did it have flowers?
I've seen pictures of flowers,
And I'd love to have smelled one!

Whose river was this?
You say it ran freely?
Blue was its color?
I've seen blue in some pictures
And I'd love to have been there!

Tell me again, I need to know:
The forest had trees,
The meadows were green,
The oceans were blue,
And the birds really flew,
Can you swear that was true?

Whose gray sky was this?
Or was it a blue one?
Nights there were breezes?
I've heard records of breezes,
And you tell me you felt one.

Tell me again, I need to know:
The forest had trees,
The meadows were green,
The oceans were blue,
And the birds really flew,
Can you swear that was true?

INDIAN COUNCIL
HERITAGE NIGHT

Kandalore Staff - Kirk Wipper

The event was designed to demonstrate a method of interpreting the attitudes and beliefs of those who lived in the natural physical environment before us.

To accomplish that purpose a script was written, based on the period of Canadian History when Indian allies were sought by the French and English fur trade rivals. Essentially, the serious part of the Council portrayed a debate that may have taken place among the Iroquois Nations, regarding their position, not only with the French and English, but also with their traditional Algonquin enemies.

The Council concluded the opening ceremony in which respects were paid to Wakonda (the Great Spirit), Maka-ina (Mother Earth), and of course, the four winds, each of which had a special significance for the Indian. Part of the evening was devoted to North American Indian games, a dance (kiki bird) and to a traditional legend.

The closing of the Council was taken from the Omaha whose prayer provides for an appropriate closing -WA-KON-DA DHE DHU WA-PAH - DHIN -A TOW-HE, which liberally translated means, "O FATHER, A NEEDY ONE STANDS BEFORE THEE. I WHO SING AM HE! "

In all, an attempt was made to represent Indian culture in a respectful manner. It was a way of revealing the dignity and beauty of that group of original people from whom we have benefited so extensively in the outdoor education movement.

OUTDOOR EDUCATION AND THE FUTURE OF MAN

Thomas L. Goodale

I ought to be delighted with my pleasant duties for this evening. The title "Outdoor Education and the Future of Man", I was assured, could be so broadly defined that I could talk about most anything. That being the case I would prefer to talk about myself, since that is the one subject about which I am more familiar than any of you. I don't have any special insights into the future of man, though I have a certain amount of faith that he has one. Similarly, I am convinced that Outdoor Education has a role to play in shaping that future. The problem is, I don't know very much about Outdoor Education. And when I reflect upon the fact that many of your names are familiar to me by your speeches and publications and by your names being mentioned by those I respect, it is both presumptious and dangerous for me to step into your den. I would rather talk about myself, and for a moment or two I'm going to do that.

I was born in Cortland, New York. If it weren't for that I would not be here or much of anyplace else most likely. Having achieved a modicum of home town failure, I decided to apply to the local College to study Recreation. Naturally, given my less than noteworthy credentials, I was denied admission. And of course you know what happened. "Gold" Metcalf went to bat for me, and he has been going to bat for me ever since. It was then my privilege to study with Dr. Metcalf and to work with him, and to study and work with Charles Brightbill. I have been, in every sense, twice blessed. And I have a very strong, and I trust reasonably accurate idea of what education is all about. It is about Gold Metcalf and Charles Brightbill.

Most of you have in your background a "Gold" or a "Charlie" whose influences on and in your lives has been of overriding importance. It is men like these who would be our best bet for defining the future of man. Men like these are in previous short supply. Any future worth pursuing requires that somehow the Metcalfs and the Brightbills are in greater abundance.

It should not be necessary to elaborate upon what, given present trends, the future has in store. More time, income,and mobility and as a consequence, enormous recreation pressure on Outdoor Resources, more (supposedly) durable goods, more depleted resources,more pollution in all environments, more people, more cities, more of most anything that can be quantified. And probably less of everything that can't be quantified. One seems to be a function of the other.

The technologically feasible structures and manipulations will continue growing exponentially, unchecked except by conventional economic forces,a system which at one time in the distant past had some pragmatic validity to commend it. It makes no sense at all today. Technologies in chemical and electrical modifications of behaviour and intelligence and further developments in medical and cyborg technology challenge man to the care of his being. War technology threatens his existence, as do the ecocidal technologies affecting his land,air and water.

The problem of man's future is so enormously complex as to require new kinds of thinking about entirely new issues with legal,political,technical and moral and ethical ramifications for the entire world for all time. One technology, the ramifications of which, reviewed, however cursorily, can illustrate the problem. Cybernetics is one such technology, its concommitants already causing serious disruptions.

First of all, cybernated techniques can and do replace the work of humans in almost any type of employment at almost any level. As a consequence, the work force is stripped of its work, its income, and even worse, its source of contact, identity, and self-esteem in the social order. Contrary to current thought, the protestant ethic is not dead. In fact it remains an essential assumption of most political leaders who hope to get elected. Mr. Nixon speaks the ethic in almost pure form, and the Canadian election may hinge on this issue. It is better in the western world to have a meaningless, useless, or even destructive and de-humanizing job than to be without one. Should cybernetics force reshaping the work ethic, the degrading assumptions and employments may be alleviated or eliminated. That is the only positive possibility to commend it.

Those remaining in the labor force may fare little better, as cybernetics(along with human engineering) continues the disengagement of human physical and mental

processes. For the last 15 years people have been employed as "witnesses"whose work consists of watching cybernated systems work. It is a totally inappropriate use of a man,a tragic waste of human resources.

Despite talk of expanded capacity and manipulative rationality, despite the descent of the new Messiah called "Systems Analysis",cybernation will continue assumptions of decoupled systems typical of early analytic thought. It will continue to treat variables in linear fashion and will continue to assume that values not quantified simply do not exist. Yet there are no decoupled systems,linearity is an accurate assumption for almost nothing of consequence, and most qualitative dimensions of human well being have not been, and may never be,quantified.

Cybernation reinforces already powerful drives for unlimited productive power and for unlimited destructive power. Either way, the consequence is catastrophic. It facilitates man's attempt at self-deification, further alienating him from all those natural laws and forces which already threaten his continued existence as a species. Whether productive or destructive forces prevail is of little consequence. It is a choice between a bang and a whimper. It is, in fact, no choice at all.

Cybernation threatens us in another fundamental way. Its' capacity to store, manipulate,and disseminate data raises the spectre of Big Brother in the form of dossier banks and coupled with surveillance technologies can only raise an already intolerable level of fear, suspicion, and anxiety. And it raises all sorts of questions as to access to the data. Most would have neither access nor the ability to acquire and understand the data even if access were allowed.

So for the overwhelming majority,ignorance about information used to shape their lives becomes an inevitable consequence of cybernetics. The highly technical and estoric skills required to cope with cybernated systems will always be the privilege of the few. For sometime there has been a battle between technocrats and democrats, and the technocrats seem to have the edge.Democracy assumes informed citizens. Yet leaders of democracies refuse to inform them and we have all been told again and again that officials and agencies have certain and superior information which can't be revealed and on the basis of this information have taken the only reasonable course of action. That destroys the very foundation of Democracy.

Further, the technocrats who feed these officials and agencies are pretty much of the opinion that the information is too sophisticated and complex for we unwashed masses,and so it wouldn't do any good to tell us anyway. To make matters worse, those who choose careers in the mechanical and manipulative technological areas are frequently those whose character and personality types tend toward the authoritarian. They are most comfortable with cool, subjective, rational, and precisely specifiable tasks. And that is the type most inimical to the future of man.

Finally, cybernation is a prime accelerator of change. Even if all change was good, the consequence probably wouldn't be, simply because of the pace. There are limits to the amount of flux and uncertainty that an individual can healthfully sustain. Most human institutions are already hopelessly anachronistic. Since this is the major source of insulation from forces too large for the individual he has already lost some of his protection. Perhaps he will never be able to count on institutional buffers again.

At first glance, the cybernated future of man may appear to be a long way from outdoor education. If you find it so, that is a shame, for outdoor education can contribute to humanizing that future in assorted direct and indirect ways. The task, of course, does not fall only to Outdoor Education. It is everyones' task, and when it is that, it is no ones' task and once more falls through the crack. All must contribute.

In terms of the loss of identity and self-esteem caused by dislocations in the world of work, education has a major role, and outdoor education anunique opportunity. There is yet much work to be done, and even if it may not be a source of income, it can be a source of meaning and worth. For those whose minds and muscle are no longer required at work, their entire being can be immersed in avocational and recreational experiences especially in the Out-Of-Doors. For those whose lives are fractionated as though man himself were a decoupled system, outdoor experiences can continue to demonstrate to him the unity of being in nature as nature. And those qualititative aspects of beauty and tranquility so readily available outdoors for efully impose themselves as measures of well-being.

The outdoors can and should communicate the worth of all living things and the essential interdependence of all resources for life. Understanding this, one can reject both productive and destructive drives. And the outdoors

can be a well of individual resourcefulness and skills for management of fear, anxiety, and stress. Further, by expending concepts of time and space and imposing its own rythmns, the outdoor world insistently states a different wisdom, highlighting, in contrast to the conventional wisdom of artificial and arbitrary environments, a bit of man's folly and more than a bit of his inhumanity toward his fellow men.

All this should adequately justify outdoor education, and inform those whose senses are not already brutalized and insensitive to the sensitive character of humanity. All these contributions can help, though altogether, they are not enough. Outdoor education should do more, and it can do more if you want it to. If you will indulge a few observations of an outside but concerned observer, I will share some of my impressions about your movement before moving on to what I consider the crux of the issue; and to quote Thoreau, "As time is short, I will leave out all the flattery and retain all the criticism."

It is a major disappointment to me that outdoor education is not growing much faster than it is. Though the double restraint of two institutions; school and government, present enormous (and often silly) obstacles, the rate of growth is still disappointing. My guess is that if all students in K through 12 or 13 were considered, the average outdoor education exposure would be less than one day a year. Whatever good realized in this period could well be negated by a Gum Ad, a Beer Ad, and a Pepsi Ad. Invariably, they extol the virtues of tearing around and tearing up the outdoors.

Seemingly,outdoor education is firmly established in the precise place where many think all of education ought to be. "Be relevant," "Deal with the Real World," "Get outside those little boxes of time and space known as classrooms." Those appeals have been falling on apparently deaf ears for at least the last ten or fifteen years, and the present system is not different in any fundamental way from what it was 20 years ago.

How much of the accountability for the painfully slow growth should be borne by outdoor educators would be difficult to establish, even by those most knowledgeable. No doubt some little bit. In the form of amateur sociological guesses, there may be some restraining elements in your basic make-up. You seemingly lack political clout, and that is the name of the game. There are a host of agencies with a very large stake in outdoor education, but they do not appear to have jelled into an effective force. Perhaps too

many outdoor educators are disinterested in the political sphere and suspicious and cynical about it.Perhaps there is a certain selfishness contained in the attitude that "I'd much rather be off in the woods." You have never seen a tree vote in a School Board election or for a Bond issue. So you had better educate those who do. Political sophistication is essential if you hope to achieve the support long overdue.

Secondly,given that your numbers are not large, and both people and resources almost hopelessly scattered, you can't afford to dissipate your energies. It helps to aim at a target; It helps more to aim at the Gold, and "Gold" Metcalf demanded that you aim at the microscopic dead center of the gold. It seems that however you shoot a number of arrows into the air,they fall on the earth, you know not where...and you're losing a lot of arrows that way.

For example: The discussions of outdoor education jargon and particularly the attempts to distinguish between outdoor education and environmental education are interesting enough, but they don't go anywhere. If its a problem of professional identity then at some point someone will ask on whose behalf the dream is being dreampt. Is it the profession or those it seeks to serve?

The matter of "urbanizing" the curriculum content is certainly important but it isn't nearly enough. Unless outdoor education and educators throw their energies into creating a habitable urban environment, it is little more than a sop for the critics.

Then there's the damning little note about lack of sophistication in outdoor education research. This is true, but deceiving. Sophistication too frequently means that something not very important is researched very well. The real issue is to identify areas of research that are important and to stop conducting the obviously congratulatory investigations. You suffer from a surfeit of self-applause.

The matter of cognitive and affective domains and the corallary matter of behavioral objectives and objectivity in information dissemination and mastery appears to be little more than arranging disciples according to the outcomes receiving priority. Perhaps it is possible to advance the cognitive frontier without expanding the affective domain. It may be possible, but it makes no sense at all and it strips from education its most important function.

Its function,quite simply is to make men. Failure to do that places a terrible handicap on those who will live in the future we create. The crux of the matter is that we need men, and it takes men to make men.

We cannot count on institutions such as schools and government to meet this need. The need is an immediate one, and the time lag in re-tooling whole institutions is one or two decades. Those imbedded in bureaucratic organizations are psychologically disinclined to jeopardize a satisfying self-image based on behaviour already demonstrated to be successful. So the past presses forward relentlessly. We will have to build with smaller blocks.

The new breed of men are going to need a long-range, world-wide perspective. They are going to have to deal with an enormous number of variables related as possibilities and as both cause and effect of one another. They are going to need skill in working through the tortuous moral and ethical dilemmas implicit in setting social priorities and the risks that must be taken to attain them. This will require a strong grasp of intellectual history and of comparative ethical systems. And this new breed must be able to cope with the daily problem of information overload, a problem we have already encountered and which often results in either paralysis or the quest for further information, hoping that it will break the deadlocks. Either way, not much happens, though it is clear the future will be set by men of action.

> "With regard to education of the feelings,the self, the emotions, we must educate for empathy, compassion, non-exploitativeness, non-manipulativeness, for self-esteem, for tolerance of ambiguity, for acknowledgement of error, for patience, and for suffering." *1*

There is no way to meaningfully relate to man without the ability and confidence to feel and to be. So it may be necessary to lose your professional identity in order to gain human identity. Continuing to relate professional identity in order to gain human identity. Continuing to relate professionally rather than personally will only continue to pollute the sociosphere. It will allow us to continue to run our programs and institutions for our own convenience rather than for those we are supposed to serve. Schools are a clear manifestation of that selfish approach. It facilitates bureaucratic efficiency which seems inherently counter to human efficiency and it

allows us to avoid the discomforts and anxieties of real human contact and understanding.

Without the deep feeling,appreciation,and understanding of selves as selves and as part of others, there will be no source of inner strength to resist engineering people rather than promoting their self-actualizing. Without that deep human sensitivity our plastic coated minds will continue to shield us from the blood, sweat and tears of man's daily inhumanity to man. We shall continue to let others worry about the moral and ethical questions of what we do and continue to let their morally and ethically bankrupt status go without challenge. Michael calls this "Petit Eichmannism."

There is only one way that educators can impart these feelings. And that is to demonstrate that they themselves possess them. The role of teacher as a neutral and objective disseminator of neutral and objective information is wholly inappropriate and results in miseducation and maleducation. It assumes that facts without influence of feelings are the basis for decision making. This has never been the case,and never will be. Further, the issue of "brainwashing" little children is a phoney one. The question is really one of who is doing the brainwashing, and to what end. Every firm, every program, every agency that I can think of is doing their damnedest to influence the young, and the not so young.

The world is full of partial and partisan definitions of reality. It is full of ethical dilemmas, crises of conscience, conflicts of principle. The only way the young can learn to sort through these dilemmas,crises, and conflicts is to be aware of them and exposed to them. Students must be then, subject to the influence of many teachers, not teaching facts of life, but styles of life and living. Teaching should not be separated from other roles of private person and citizen. Unfortunately, too many teachers have no other roles,and the image they cast is so faint as to be regularly overshadowed.

What we need then is humans being intensely human. As William Arrowsmith put it:

> "We lack educators...by which I mean visible embodiments of the realized humanity of our aspirations. Our(schools)and societies need this compelling embodiment, this exemplification of what we are all presumably at as

they have never needed it before.It is Men we need, not programs." 2

Great teachers have always been great men. Their lives have always been compelling embodiments of the kinds of human concern and care and conduct so vital to the future of man. "Gold" Metcalf and Charles Brightbill were exemplifications of what we are all presumably at. And great teachers have always, by definition, had a deep and lasting influence on their students, an influence separate from and vastly greater than the objective content of any course. It is men we need, not programs.

Education can no longer be preparation for life. The task is larger. We have to prepare the kind of future in which preparing for life will be worthwhile. Only men can do that, and only men can teach them how.

That is the center of the Gold. That is where you should aim all your arrows-- this weekend -- and all the weeks and weekends to come.

1. *Donald N. Michael. The Unprepared Society: Planning for a Precarious Future. (New York)Harper and Row, 1970 p. 109. I lean heavily on Michael's here, especially his chapter"The Challenge for Educators."*

2. *William Arrowsmith. "The Future of Teaching." The Public Interest(Number 6)Winter,1967, p.56*

OUTDOOR EDUCATION FOR HANDICAPPED CHILDREN
"ONE STEP BEYOND"

Sharon Greer

INTRODUCTION: Slides--"Which of these children would you identify as handicapped?"

The answer depends on your definition of the word "handicapped".

DEFINING OUR TERMS: Discussion; labelling; reason and consequences.

CHILDREN WITH LEARNING DISABILITIES: Outdoor education can take each child "One Step Beyond"; Seing the child and his needs; Specific learning disabilities.

HOW ONE CAN HELP AND WHERE TO BEGIN: Readiness for learning involves; 1. Visual Perception -- What is it? Where does it begin?

DEVELOPMENTAL STAGES:

USING THE OUTDOORS TO DEVELOP AND IMPROVE UPON NECESSARY CONCEPTS AND SKILLS REQUIRED FOR EFFECTIVE LEARNING: (i) Gross and fine motor balance. (ii) Body spatial organization. (iii) Directionality. (iv) Seeing a and relating. (v) Perception in distance and depth. (vi) Tactile discrimination.

2. Visual Co-ordination -- (i) Visual acuity. (ii) Judging likenesses and differences. (iii) Judging foreground and background. (iv) Shapes and patterns. (v) Visual recall and retention.

AUDITORY PERCEPTION AND VERBAL EXPRESSION:

APPLICATION OF ACTIVITIES TO NEEDS OF EMOTIONALLY DISTURBED, AND SLOW LEARNERS:

SOCIAL AND EMOTIONAL VALUES OF OUTDOOR EDUCATION FOR CHILDREN WITH LEARNING DISABILITIES:

COMMENTS FROM THESE CHILDREN ABOUT THEIR OUTDOOR EXPERIENCES: emotionally disturbed; perceptually disadvantaged; retarded; deaf; multiple handicapped.

MAIN PURPOSES FOR USING THE OUT-OF-DOORS;

SUMMARY AND CONCLUSION.

EDUCATION FOR THE CULTURALLY UNIQUE CHILD
THE NATIVE CHILD

Wilma Skinner

Background: Indians are the only race of people that have been defined by legislature - "The Indian Act". This makes the child Unique.

The Native Culture is different from the dominant culture, in ways that are unique.

These culture differences cause conflict with the dominant society, because they are so unique and misunderstood.

First: We have what I call the'Christian Ethic!' Postponing pleasure now for reward in the future. The 'Christian Ethic' trains one to postpone pleasure for one final heavenly reward in the distant future.

This principle of postponing pleasure also influences the economic structure of the dominant society, because one must save, not only pleasures, but possessions, the material things, and, of course, money.

Secondly: Again a part of the 'Christian Ethic' - one must work. But work, to work often within a fixed place and within time boundaries of hours and years. One's work is first, then pleasure and play.

Thirdly: Related to the work ethic is the dominant society's strong consciousness of Time. One's entire life is regulated by the clock....it is time to....

Now, when we consider the Native Culture, these three concepts of the dominant society are very foreign to theirs.

Pleasures are not postponed, but are enjoyed now. Now is the time for pleasure, because of a happy event, or because of the people present. This chance may not occur again.

Native people do save, of course, but with a different emphasis. They save to meet needs in the immediate future, not to have possessions as esteem symbols.

Native culture has always been time conscious, but with a different scale. Food gathering tasks were seasonal and determined by other natural factors. Time units were therefore longer and more flexible.

Native people work long and hard, but with more immediacy. There is a necessary task, so it is done, and when the task is finished, they relax. Work is done when it is needed, but not because it is time to work. The difference in these three basic concepts causes conflict in the Native's interaction with the dominant society, in his social setting, economic setting and educational setting.

A Native student has great difficulty making a transition to these new concepts of time, words and possessions when he comes into the school setting. These difficulties can also be compounded by the necessity of learning a new language.

I strongly appeal to you to consider the Native child when he comes into your program. The philosophy of outdoor education coincides so closely with the total living style of Native people. Native culture reveres nature...they were true conservationists... only what was needed was taken from nature, and that which was taken was utilized totally.

I feel very strongly, that a positive bond can be built between the teachers of Science and Indian Youth. It is an area, perhaps the best one in the whole curriculum, where so many valuable aspects of his Native culture can be related to the course of studies-- the white education. It may be the one and only time someone tells him his"Indianess" is good, that it is relevant to today's society. He can gain esteem by being the resource person.

It may be your attention to his cultural values that help build his self-concept. Your kindness and encouragement may make his school year bearable, so he stays to complete one more grade.

There are many aspects of the Native culture that can be related to the science curriculum besides conservation and environmental studies. Mathematics(Many Native cultures used base 5), chemistry(their dyes, dyeing processes and medicine), and Physics(the structural aspects of their dwellings).

The Indian child is a special child--a student who comes into your program, perhaps reluctantly because of past negative learning experiences. He may approach all learning with new enthusiasm, and hope because of what you have done to give positive value to his Native culture.

EXPLORING A FOREST

"A FIELD TRIP WITH 7-YEAR OLDS(?)"

Louise Donaldson

In the right hand column I have reproduced the pages from a book which my second graders wrote, co-operatively, in connection with a half-day field trip to a nearby commercial forest.

In preparation for the trip we looked at, and talked about, many pictures, charts, and some film strips. I brought books about trees, forests, forest products, and other related topics. These were read and discussed.

The statements on the right were dictated by the children. I wrote them on the chalkboard as they dictated and later transferred them to a chart tablet.Sometimes statements were challenged and when this happened, sometimes they were changed. Sometimes, it would take several children to complete a statement that was satisfactory to the group.

WHAT WE WANT TO LEARN

1. Why forests are important
2. The different kinds of trees.
3. What other things live in the forest.
4. What animal homes are in the forest.
5. How soil is made.
6. Why soil is important to trees.
7. Why trees are important to soil.
8. How the forest changes in the fall.

OUR SAFETY RULES

1. We will get on the bus slowly, carefully, and politely.
2. We will stay seated on the bus.
3. We will stay with the group.
4. We will watch out for poison ivy and stickers.
5. We will stay on the trail.
6. We will watch where we walk.
7. We will wear slacks, heavy socks, and long sleeves to protect our arms and legs.

I set up one ground rule for statements of rules. They MUST be stated positively!

Believe me, this wasn't easy. Before we finally arrived at "We will get on the bus slowly carefully, and politely" we heard "Don't Hit", "Don't push" "Don't butt", etc. I kept coming back with "Can we say what we WILL do that will take care of all these things?"

Children hear DON'T far too much I think.

Self-evaluation is important, and it's important that it take place as soon as possible after the experience that is to be evaluated. We made our trip to the forest one morning. We wrote the story"How Did We Do?" in the afternoon of the same day---after a discussion of the standards the children had set for themselves.

I had several major objectives for the field trip other than learning subject matter. Among them were:

1. Improving skills of observation
2. Improving vocabulary

OUR CITIZENSHIP RULES

1. We will be nice and polite to each other.
2. We will listen when anyone is talking to the group.
3. We will take good care of everything in the forest.
4. We will leave the forest in as good shape as we find it.
5. We will be very careful with baby trees.
6. We will use our senses of seeing, hearing,feeling,smelling and tasting to learn about the forest.
7. We will taste things only when our teacher tells us it is all right to do so.
8. We will learn as much as we can.

HOW DID WE DO?

Our trip was fun! We were curious to see what was in the forest and we were excited about the trip. Even though we were excited, we think we did a pretty good job remembering our Citizen and Safety Rules.

Next time we will try to be quieter on the trail, so we can hear more and learn more. Today when we pretended we were Indians we heard some crows. We were so quiet they flew right over us.

3 Improving ability to describe accurately the object observed.
4. Improving multi-sensory skills in learning.

I was not concerned that the children learn to identify the different kinds of pine trees.

I was concerned that they improve their classifying skills ... their ability to see likenesses and differences.

It was my hope that the explorations which resulted in the stories in the childrens' book would help the children begin to understand the interrelatedness of living and nonliving things--help them begin to understand the interdependence of all things in the environment.

WHAT DID WE LEARN?

As we got close to Sinnissippi Forest we saw both deciduous and evergreen trees. The deciduous trees were a beautiful outline against the sky. In front of the tall deciduous trees there was a row of evergreen trees. They made a pretty green border for the forest.

Deciduous trees lose their leaves in winter. Evergreen trees keep green leaves all the time. Evergreen trees do lose leaves. The forest floor was covered with dry pine needles. Evergreen trees grow new leaves before the older leaves fall off.

KINDS OF TREES

Sinnissippi Forest has deciduous trees, but most of our trail was in the evergreen parts of the forest. First we saw White Pine trees. Their bark was smooth. The bark was wet when we saw it, and it was dark green. The bark of the Red Pine trees was rougher than that of the White Pines. It was reddish brown in color, and was cracking and peeling off in big flakes. The bark of the Jack Pine was darker brown. It was cracking and peeling off in small pieces. It had very short needles and very small cones. We saw a few Norway Spruce trees. We have seen this kind of tree in people's yards.

If field study had no other justification, it would be well worth all the time and effort spent on it because of its impact on language art skills. Most young children like to go outdoors -- like to learn about what they've seen and done -- and when their words are put down on paper (or the chalkboard) they like to see and read about what they've done and seen.

When they're working on an experience story co-operatively, they're willing to work on a sentence until it sounds just right--to try to figure out the very best words to use--to make their story accurate and interesting.

HOW SOIL IS MADE

In the forest we saw lots of sandstone. Lichen was growing on some of the sandstone. Lichen is a simple plant that can grow on bare rock. It gives off an acid that helps break down the rock into soil. When living things die and become part of the soil, topsoil is made. When topsoil is made, other plants can grow. We saw places where just a little soil had been made. Small plants were growing there. Trees and other large plants were growing where more soil had been made.

Water, wind, and ice also help break down rocks into soil.

Trees help soil by dropping their leaves, twigs, flowers, and seed. When these things rot they make good rich topsoil. When trees are cut down the stumps rot and make topsoil. We saw one stump that was rotting and had made enough soil that a baby pine tree was growing in it.

Soil helps trees by giving them minerals--or fertilizer. Soil also stores water for the trees. Soil helps the trees stand up.

Many people care nothing about what happens to the natural environment until they realize how it affects them.

Children need to understand that man is very much a part of the natural environment, even though he might live in a big city and never see a forest or a stream.

ANIMAL HOMES

We saw many signs of animals in the forest. There are many insect galls, mole runs, and animal dens. One of the dens is a fox den.

There are holes in dead trees where squirrels and some kinds of birds make their homes. Many insects are living in rotting trees and stumps.

We saw a brush pile that could be a home for some animals. We saw some deer tracks on the trail.

We think that Sinnissippi Forest provides homes for many animals.

FUNGI IN THE FOREST

In the forest we saw many fungi. Some of them were mushrooms. We saw shelf fungus and turkey-tail fungus. The turkey-tail fungus really looks like a turkey's tail.

The mushrooms were growing out of the ground but the other fungi were growing on dead trees and stumps. Fungi help break down the dead trees and stumps into small pieces to help make topsoil.

Each time we write a new story, we list words that the children have not read before.

It's fun for them to find out they can read some of these words.

HOW FUNGI GROW

Fungi grow from spores instead of seeds. Spores are very, very, small in size. They grow in spore cases on the fungus plant. When the spore cases burst open the spores travel through the air until they find a place where they can grow. They can grow only on plants or animals. Some can grow on living plants and animals but the ones we saw were growing on dead plant matter.

Fungus plants have to grow on plant or animal matter because they cannot make their own food. They do not have chlorophyll or leaves. Leaves are food factories of green plants.

One kind of fungus plant that we might see in our homes is bread mold. We looked at bread mold with our Blisterscope and saw the spore cases. They looked like little balls on slender stems.

WHAT WE GET FROM TREES

We closed our eyes and tried to think what our classroom would be like without trees. We decided our classroom would be pretty bare.There would be no paper,books,charts, pencils,wooden floors,desks,tables, doors,piano,easel,chairs,shelves,

NEW WORDS

1. Sinnissippi
2. important
3. different
4. changes
5. politely
6. poison
7. ivy
8. stickers
9. slacks
10. sleeves
11. protect
12. heavy
13. shape
14. curious
15. excited
16. through
17. remember
18. quieter
19. pretended
20. deciduous
21. against
22. border
23. carpet
24. rougher
25. pieces
26. Norway
27. spruce
28. sandstone
29. lichen
30. simple
31. acid
32. twigs
33. stumps
34. minerals
35. fertilizer
36. stores
37. galls
38. mole
39. provides
40. fungi
41. shelf
42. fungus
43. spores
44. instead
45. burst
46. travel
47. chlorophyll
48. factories
49. mold
50. Blisterscope
51. slender
52. decided
43. charts
54. easel
55. innercom
56. desks
57. frames
58. piano
59. furniture
60. certain
61. millions

innercom box, window frames, or picture frames.

Wood is used to make other things too. Some of the important things that are made from wood are houses, furniture, telephone poles, boxes, and boats.

Some of our food comes from trees. Trees give us many kinds of fruit and nuts. We get maple syrup and maple sugar from certain kinds of maple trees.

Some tree farms grow evergreen trees for Christmas trees. Millions of evergreen trees are planted each year for Christmas trees.

(1) This is a step-by-step account of an actual field trip The teacher's comments and rationale appear in the left hand column; childrens' experience story in the right.

OUTDOOR EDUCATION WITH PRIMARY DIVISION STUDENTS

Audrey E. Wilson

A brief series of slides with taped commentary, attempted to set the values for beginning with the very young child in Outdoor Education. The slides illustrated how Outdoor Education has potential for people from infants right through to the sunset years of the senior citizen Some of the values of Outdoor Education stressed through the aid of nature slides were:

NATURE SLIDES USED TO EMPHASIZE THESE POINTS:

- the need to be able to use leisure time wisely
- observation of surrounding beauty
- Outdoor Education spans the environment
- inquiry and study are provoked
- ability to recognize nature's camouflage
- it questions man's right to deserve the trust of animals and birds
- seasonal changes
- Outdoor Education spans the personality offering almost unlimited opportunity and challenges for personality development

SLIDES USED DEPICTED ACTIVITIES STRESSING THESE POINTS:

- creative recording
- responsibility and self-discipline
- opportunity for interpersonal relationships
- challenge and adventure
- respect for one's own and other's individuality
- sharing and co-operating

FACTS ABOUT OUTDOOR EDUCATION:

- low equipment expense
- takes place during all seasons
- recreational activities
- integrates across subject boundaries
- need for pre-planning and follow-up

If we start with the very young child, the love of an animal, bird or plant will help create within him a 'reverence for life',which ultimately leads to respect for a quality environment.

ADVENTURE-CENTERED PROGRAMS IN SCHOOLS FROM THE MAINSTREAM OF OUTWARD BOUND

Sharon Goodyear

Dr. Kurt Hahn, a German educator acclaimed to be the founder of the Salem system of education, the progressive English public School, Gordonstoun, and subsequently, the Outward Bound Schools in Britain, began a conference address in 1965 with these words:

> " I am not the founder of Salem. That was Prince Max of Baden.And I am not the originator of what has been called the Salem System of education". Shortly before he died Prince Max led an enthusiastic American friend round his schools.The friend asked,"What are you proudest of in your beautiful schools?" Prince Max answered:"I am proudest of the fact that there is nothing original in them; it is stolen from everywhere, from the Boy Scouts,the British Public Schools,from Plato,from Goethe." Then the American said, "But, oughtn't you to aim at being original?" Prince Max answered "In medicine, as in education, you must harvest the wisdom of a thousand years. If you ever come across a surgeon who wants to take out your appendix in the most original manner possible, I strongly advise you to go to another surgeon."

What I have to say about adventure centered programs in schools today is not original. It is a conglomerate of gut feelings, thoughts, and observations gleaned from adventure oriented programs which my path has come across. Since most of my personal experience is based upon involvement with the Outward Bound Schools, much of what I have to say relates to OB concepts. But, a point I wish to make is that pure Outward Bound is not the panacea for all schools systems and specialized institutions wishing to initiate an adventure program.

Outward Bound has come a long way since the mid 1960's when it was concerned primarily with defining and re-

defining the optimum ingredients of a traditional course for middle class males. Which knot should be used for a tie-in in rock-climbing, or when should the solo come in the course?

NOW - an educational process has evolved that enables the U.S. schools, one Canadian school, and one OB center on this continent, to offer adaptive programs for young offenders, business executives, deaf children, males and females in in-school programs on the secondary and college level. The application of the concept has grown! It has grown through three processes:(i) defining the specific set of needs and educational goals of the school system, (ii) designing an experimental framework, (iii) responding with a program that will benefit the needs of the particular group, and only recently is Outward Bound beginning to grow in a fourth dimension - that of the evaluation process and follow-up procedures.

The reason for the great upsurge in interest and experimentation in adventure programs is as varied as the programs themselves.

(1) The Massachusetts Division of Youth Services in the U.S. and the Ontario Correctional System wanted to see if an adventure program would improve socially unacceptable modes of behaviour and decrease recidivism in boys committed to correctional institutions. Ontario Corrections initiated project D.A.R.E.

(2) Atikokan High School in Ontario pioneered in an Outward Bound adventure programe in their extracurricular athletic program. Looking to this approach to promote more effectively the personal growth of each individual student in terms not only of outdoor skills but self-control, self-reliance, tolerance, confidence and initiative.

(3) Dartmouth College in New Hampshire established the Dartmouth Outward Bound Center under the auspices of the Tucker Foundation whose mandate is to offer programs which will provide experimental learning opportunities for Dartmouth undergraduates and encourage responsible involvement in the social and educational issues of society.

(4) The EEE program in the Burke County School System in North Carolina and the Outdoor Learning Center in

Ottawa have developed adventure programs which seek to teach through outdoor adventure activities an increased awareness and respect for the out of doors, and self in this learning environment.

But, whatever the stated reasons for these varied adventure programs speak to: ANXIETY the need to release pent-up energy and channel it into meaningful socially acceptable yet challenging outlets.

I picked up a hitch hiker last week while driving to New Hampshire who was enroute from Humbolt College in California to Rhode Island to visit his family. When I asked him what he was studying, he said, "The Science of Creative Intelligence". "Oh Yeah," I said, "Well, what intellectual data have you created?" And he proceeded to tell me that he was studying the practice of transcendental meditation and has found that this increasingly popular form of meditation helped him to control and rechannel that same bundle of unspent energy caused by the daily stresses of life into a more aware, perceptive and fruitfully active life style. And I had to stop and consider that whether the outlet is meditation or adventure activities such as hitch hiking cross country the underlying motivating need is similar. Now I'm not saying that we all should take twenty minutes to do some internal navel introspection in the middle of a 120 foot rock climb in order to draw forth the internal energies to complete the climb; although I have seen just this approach to such an adventure.

Rollo May in "Man's Search for Himself" defines anxiety as the human being's basic reaction to a danger to his existence, or to some value he identifies with his existence, and it may be felt in slight or great intensity ----from a general apathy and bewilderment, to stark terror with beads of perspiration. Anxiety disorients, temporarily wipes out a person's clear knowledge of what and who he is and blurs one's view of reality around him.

The task then is to strengthen our consciousness of ourselves, to find centers of strength within which will enable us to stand despite confusion and bewilderment. It's that new dimension of self one feels when one's feet have touched solid ground again after a 150 ft. free rappel which formed the beads of terrorized perspiration.

ALIENATION

Although it is a generalization, I would classify

most adventure program voluntary participants are being alienated; alienation from the immediate system of education in which they feel trapped, alienation from the society in which they live, and alienation from themselves. The three reasons given by most Dartmouth students for going through an Outward Bound term are to get away from Dartmouth, to learn more about the out-of-doors and how to relate to people and to test oneself. This should tell us that many students do look to adventure programs for alternatives to their current and projected life styles.

AWARENESS

How do students - intelligent, sensitive, and brimming with energy come to know themselves as individuals in a society that rarely tests them except in the area of the classroom in terms of letter grades? How do students come to understand something of the dynamics of the group prior to entering a thoroughly inter-dependent society where a few individuals work alone? The opportunity to come to a series of important awarenesses about oneself are golden in adventure programs...awarenesses about himself, his relationships with others and his inter-relatedness with natural forces.

Confronting anxieties, overcoming alienation, developing awareness...are feasible in adventure programs with the programmed and sensitive use of the environment.

I have no magic formula for initiating adventure centered programs in schools, I return you to Kurt Hahn's distrust of original programs and encourage you to:

(i) first define the specific set of needs of the youth to whom you are offering the program
(ii) then design an experimental framework, taking the heart of one program, the lungs from another, the skeleton from a third, mix with a trusting belief in experimental learning, and
(iii) gather your own strength to set the body in motion.

In order to help you in this process, I have had printed a handout bibliography of papers and reports which have evolved from schools that have experimented with adventure programs.

And secondly, I want to take a further few minutes to explain briefly the offerings of the Dartmouth Outward Bound Center which I feel has a unique structure for branching from the mainstream of Outward Bound and generating new

currents in adaptive OB programs. The main goal of the Dartmouth OB Center is to bring together adventure-oriented experimental learning and classroom conceptual learning through (i) the OB Laboratory (ii) consultative and off-campus internship programs (iv) consultative and practical services to New England educational and specialized institutions initiating adventure centered programs.

THE OB LABORATORY

These are abrieviated OB experiences designed to provide an experiential element within existing academic courses. Labs are 6-10 days long and may take place in one block of time or spread over a number of week-ends. Classroom professors and OB program specialists jointly plan the lab. For example, in the Psychology OB Lab, the first lab week-end will be an experience in a new and novel environment - literally in the trees, climbing into a tree, eating, sleeping...virtually living in a tree for close to twenty-four hours. The experience will then be interpreted in terms of stimulus-response learning patterns, conditioning, etc.

STANDARD COURSES

These 23 day courses will be offered as the beginning of a leave term for their own merit or as a phase of an individually designed term.

OFF-CAMPUS INTERNSHIP PROGRAM

The goal of this program planned in conjuction with the Education Department is to contrast convention learning in the classroom through practice teaching with experiential learning in an adaptive OB program through assistant instructing. A student begins the 10 week term with a standard OB course, then proceeds to a regional high school where he would practice teach and work with the school's outdoor program.

CONSULTATIVE SERVICES

Through the Internship Program the center is able to provide active direction in interpreting and implementing adaptive OB programs in public and private secondary schools and specialized institutions in and around the Hanover area. e.g. Crotched Mountain School for Deaf and Handicapped; Claremont High School; State Industrial School; Connecticut Corrections.

ADVENTURE PROGRAMS IN SECONDARY SCHOOLS

THE ATIKOKAN OUTERS

J. David Bates.

A. An Incident

Early one Friday morning, several autumns ago, two other teachers and I, along with forty Grade Eleven boys broke camp on some islands in Eye Lake and headed south to the exit of the Eye River. A low, heavy cloud mass had been the source of rain throughout a wet night; it was to be the source of more. Breakfast and the anticipation of the day's trip raised our spirits and heightened the excitement.

As is standard practice, the canoes were travelling in pairs. One staff member was with each of three pairs, and a fourth pair was all students. A staff member would be with each of the lead and final pair of brigade canoes.

The first two miles of the river had nine rapids and falls, most requiring portaging. The first rapids were examined by the brigade leaders and staff. The plan decided on was that several rapids close together would be run with two people in an empty canoe, while the others carried the packs around. With many close short portages, canoes were to move in pairs as quickly as they could All would assemble at the downstream end of the last portage.

Part way through the series, it became apparent that, contrary to the original plan, the last pair of canoes was the pair without a staff member. To remedy this, one staff member was left at a portage, to wait for the last pair. At the end of the ninth portage, the two staff members and the students in the first six canoes waited. The wait became longer than expected, so lunch was made. Brigades became restless and wanted to be off down the river-- they were alright, and ready to go. A heavy downpour thoroughly dampened spirits. Little groups of glum and despondent Outers huddled in various places. "Grace under pressure?" -there was no sign of it.

Lookouts saw and heard nothing; whistled calls brought no response. Eventually, that dreaded decision needed to be made--haul some of the canoes back over the portage and search. First,a check for the staff member left at the portage. No signs apparent. Presumably, he'd been

picked up. Good. Searches in the one place where navigational errors could be made, however, turned up no clues. Not good. In fact, distressing. Where were the canoes? Had he been picked up?

At the portage, morale was being raised by fires, and some thin hot soup, pooled from all the groups, along with other activities were the keys to this - as they so often are. Night was approaching.

One staff member and a corps of the best Outers were to follow some old bush roads back to town in an effort to put together the pieces of the puzzle. The rest were to camp until some direction was brought back the next day.

As hoped, word was brought early next morning that all was working out satisfactorily, but considerably different than planned. Apparently, though everything had appeared to be going well at the first portage, in fact, one Outer had hit his head, became disoriented, and was separated from his brigade. The search put them a good distance behind the rest. At the seventh portage, uncertain that the canoes in front of them would still be waiting, and being quite late already, they decided that their best course was to return to the head of Eye Lake, and make their way home via a main bush road. Indeed, they eventually convinced a lumber company bus to transport them. The staff member left at the eighth portage never was picked up, and he eventually decided to work his way out to town. Thus, while there had been a time when the three groups were on a consecutive portage less than three-quarters of a mile apart, contact was never re-established.

An apparently simple overnight camp and day canoe trip had lasted an extra night, and had, in terms of the original plan, barely got started. It was what we referred to as a "disaster" or "Schmozzle". But we have found that, in most cases, within these "disasters" are the situations and experiences that are most instructive to staff and students, and that come closest to the Outers and the Outward Bound objectives.

B. Objectives

These have been stated in different ways by Minnesota Outward Bound School students.

Atikokan Outers is an experience in which a youthful mind and body is subjected to physical, social and psychological stress. The net effect is intended to be a reasonably severe stress, and the starting point is usually

physical. The result, it is hoped, will be a person more aware of himself; a person who can put a measure of refinement to his strengths, and a measure of strength to his weaknesses.

C. DERIVATION AND FORMAT

The present format includes two distinct parts: Expeditions and Service. Many of the features of the Minnesota Outward Bound School (M.O.B.S.)were emulated,and are retained, e.g., early rising, work in fair weather or foul, brigade organization, demanding exercises, canoeing, the solo experience and others.

The Outers program in Atikokan includes Fall, Winter, and Spring portions, throughout the school year. The students'prior orientation to the wilderness results in little time being spent on familiarization procedures and techniques than would be given to urban youths.

In outline form, a year's program is listed here. You may appreciate from the relation of the incident at the beginning, that I do not believe this list in any way conveys the real substance of the program.

EXPEDITIONS

FALL - Five expeditions on successive Fridays.

1. Canoe: river and lakes, long portages,canoe safety, brigade organization.

2. Hiking and Canoeing: a canoe exchange - overland hike rendezvous exercise, compass traverses.

3. Canoe: overnight camp (Thursday) and day paddle.

4. Canoe: Thursday bivouac until sunset, overnight paddle night navigation and rendezvous.

5. Canoe: overnight camp (Thursday) and day paddle.

WINTER - Five expeditions on successive Fridays.

1. Snowshoeing: all day hike

2. Snowshoeing: all day hike

3. Snowshoeing: overnight survival camp and day hike

4. Snowshoeing: overnight hike

5. Snowshoeing: overnight survival camp and day hike.

More than other terms, the winter requires primarily individual effort. Team work is less conspicuous.

SPRING

One long canoe expedition, to produce strong social and psychological stress. Things begin to happen on the tenth or eleventh day that do not occur in shorter trips. The standard length is twelve days, although longer trips would be desirable.

A key feature of the expedition is the three-day solo experience. Outers are left alone on lakeshore sites with restricted equipment and supplies. This feature is not physical survival but aloneness. This seems to be one of the most appreciated features of the Outers experience, even though approached with a measure of apprehension, even fear. For most, more aloneness rather than less is desired.

SERVICE

1. First Aid: All Outers must complete successfully a St. John course in elementary first-aid. This requires about one night a week for eight weeks.

2. Community Service: Twenty hours of voluntary service in the community is required before the beginning of the spring expedition. This has been one of the more difficult features to administer. It is considered essential but has been difficult to keep from becoming somewhat diluted in quality.

D. THE SEXES: TO MIX OR NOT TO MIX; GROUP ORGANIZATION.

From the beginning girls and boys Outers have remained separated and are likely to remain so. Some trips, especially in the winter are mixed or have mixed portions. Good arguments for mixing are regularly presented and as regularly the arguments for separate Outers prevails. The predominating belief is that that which stresses the boys and makes their experience successful is not the same as that which stresses the girls and makes their experience successful.

The group organization is brigades of five to

eight Outers with a Brigade leader chosen, when and how they wish to, by the Brigade members. The emphasis is on brigade unity and sharing as well as providing opportunity for leadership and followership. The boys are inclined to emphasize brigade unity in various ways more than do the girls.

E. A CREDIT COURSE, INTERVIEWS, THE CONTRACT.

Outers is an accepted secondary school credit, although some effort is made to have students consider it an "extra" credit. It is probably one of very few credit courses that has resisted the tyranny of computer-scheduling as practised in Ontario. Whether the credit designation is advantageous or not can be debated.

Any student in Grades 11, 12, or 13 who has not been in Outers before is eligible to join Outers. A large proportion do. Early in September a meeting is held with all eligible students to describe Outers origins, objectives, features, etc. Then all interested students are interviewed to answer questions, confirm the seriousness of their intent, and in general, to ensure that they are informed about the program.

Following the interview, they are able to sign a contract committing themselves to the three terms of expeditions, to service and to accept the potential risks and labours. It is jointly signed by their parents.

Very few Outers drop out from the program after this procedure.

F. BOARD AND STAFF.

There can be no question that the involvement and support of the Board of Education in the schools and specifically in Outers is extraordinary. These are important factors in any success of the program. Like so many other aspects of Outers it is difficult to describe adequately; it must be experienced.

Staff involvement at times is 100%. Whether it is supervising maintenance of equipment, acting as supplies and equipment manager, supervising the service program, organizing the Search and Rescue group of ex-Outers, taking over classes and exam supervision, driving buses, planning special timetables, or doing any other job that turns up, there is no one who doesn't contribute. Few school programs can claim the same. It also accounts for the

difficulty in getting viable programs going in other schools.

No one should consider this kind of adventure program without being able to count on adequate staff and administrative support. And adequate is a lot.

G. SAFETY.

The importance of safety cannot be overemphasized. The means to reduce the risks as much as possible are many, and planning for possible trouble is normal. Normal procedures include: life-jackets always worn, canoes travelling in pairs, compulsory first-aid for Outers, staff first-aid preparedness, brigade unity and mutual responsibilities emphasized and promoted, back-up Search and Rescue plans by ex-Outers and staff, usually at least two experienced staff members on any expedition, planned rendezvous points during trips, and first-aid kits with each brigade.

There are regular deviations from plans simply because the exercises are demanding. Many hours have been spent at the edge of the wilderness waiting for overdue brigades. Apprehension, anxiety, uncertainty, concern about imagined difficulties; these and other emotions often make the waiting by parents and staff very tense. In fact, the change in plans or difficulties encountered by the Outers have usually caused them relatively little additional stress while exerting on the waiters and watchers a considerable psychological stress.

As a result of several incidents in the past,some reasonably severe frostbite on a bitterly cold winter hike,a staff member's broken leg on the spring trip, and the like-the Board has felt it desirable to purchase two remote radios and one base radio for use by the Outers. A number of us regret this step being taken. Most or all of the accidents and emergencies will still have to be attended to quickly by those present, some of the finest stress situations may be reduced or eliminated, overuse of the radio is quite possible, and there may even be a false and unwarranted sense of security engendered. Hopefully, the major effect of the radio use will be to reduce the stress on the waiters and watchers.

My belief is that accidents and injuries in Outers occur less often than in many of casually accepted and vigourously promoted sports such as football and basketball. I believe also that permanent injuries to hands, knees, etc. occur far less often, if at all, in Outers. I think a case could be made to show that Driver Training is riskier to life and limb than is Outers.

Nevertheless, concern, vigilance, anticipation and preparedness must always be top-priority attitudes and practices of staff and students.

H. CHANGES THROUGH THE YEARS.

Outers has evolved. Outers now make more decisions for themselves and have more responsibilities. Exercises may be physically less exhaustive than some of the toughest early ones, although still quite demanding. Contracts do not now require abstinence from smoking and alcohol, although the use of alcohol and drugs on expeditions is discourged to the point of prohibition where possible.

M.O.B.S. preparatory initiative exercises were used in early Outers exercises but there is virtually none of this in the program now.

Similarly, specific skill training sessions in lashings, shelter construction, paddling, plant and animal identification, cooking and the like were part of the program. Now some map and compass skills are taught but little else, although sessions in camp cooking and some other techniques are offered on an optional basis.

As part of the emphasis on emotions and character there were some formalized procedures such as candle-lighting ceremonies at that time contracts were signed. Some of this remains, but much has not. In part, it has been replaced by the tradition of Outers, and in part it is simply not considered essential by the present staff.

Originally extra-curricular, it is now very much an accepted part of the curriculum, using regular school time, and classed as a credit course.

Evaluations of exercises were conducted regularly at first, then were relatively rare, and have been re-established because of its apparent good value in bringing the students closer to the objectives of Outers. Sometimes done in the field, sometimes on the first school day after the exercise, these evaluations endeavour to assess the implications of the Outers' behaviour on the exercise, to consider aspects that could be improved, and in general to relate the Outers experience to their lives.

Perhaps the significant point is that through four Outers Directors, three school Principals, several Boards,and numerous staff and student participants the experience of Outers remains much the same, as do the objectives.

I. VARIATIONS.

When considering the establishment of a program with objectives similar to those of Outers one may think that access to wilderness is essential. While it is very desirable, the physical stress associated with wilderness travel may be provided by such physical activities as cycling, hiking, sailing, mountain-climbing, cross-country skiing,and similar physically demanding activities having most or all of the same potential as canoeing and snowshoeing in the wilderness of Northwestern Ontario.

This physical stress is essential to the program, but its source can be quite variable.

Other than the source of physical stress, a program of this nature may not need to vary much in objectives and form from one place to another.

J. CONSIDERING THAT INCIDENT AGAIN.

You may appreciate better now why the Eye Lake "schmozzle" exemplifies some of the best of Outers: For example-

- the very wet, cold weather washing away any 'picnic' atmosphere and making most operations more difficult;
- the apparently innocuous little slip-ups that in certain circumstances multiply together to have consequences far beyond normal expectations;
- the consequences that can arise from unwise practices, such as leaving a person alone in the bush;
- a critical situation showing up the value of confidence and the consequences of a lack of confidence, in believing the other brigades would wait;
- the complete psychological depression of the group that waited and the recovery from this must be instructive to those involved, and won't occur when things are going well;
- the responsibilities that fell to each of the three separated parties and whose response cannot be programmed in advance;
- the opportunities for real student initiative and leadership in ways that could never be simulated;

- the value of standard procedures(Canoes in pairs lead brigades waiting at all cost, etc.) in limiting the magnitude of difficulties when things go wrong. Had more serious procedural errors been made chances for more serious situations would have been increased.

As an Outers experience, the exercise provided all the social and psychological stresses needed, and opportunities for real leadership, followership and mutual assistance. Though not physically exhausting, it was tough, and more so for some than others. Many different emotions, some extreme were experienced by each person as situations changed. Most importantly, each party having found itself in unexpected and familiar situations made the best decisions they could and took actions which seemed to them to ensure their own welfare. The end result was quite satisfactory and showed their judgments to be sound.

Experiences such as these are very personal and the effects on the individuals involved vary considerably. We do not have statistical evidence that everybody benefits, nor do we always know what the effects on different people or even that they know how they are affected. Nor would anyone maintain that a particular experience or even a year of Outers makes grand changes in any one life.

There is, however, a very real feeling in the perceptive and thoughtful staff members involved over the years that maturing people need experiences of this nature as critical forces in their personal growth. Seven years of Outers has made them more certain.

OUTDOOR EDUCATION IN GERMANY

Oswald H. Goering

The utilization of the outdoor and community resources for educational purposes is an accepted concept in Germany, and is rooted in historical and cultural background of the nation. One cannot help but be impressed as he travels throughout the country noting the large number of teachers with their classes participating in learning activities in a location other than their normal classroom. As in other countries, the educational patterns and procedures reflect the values and culture of the people of Germany.

The very geography of Germany seems to be calling its people into the outdoors. The countryside is dotted with small villages, open fields, and beautiful wooded areas enticing hikers to come, look, to enjoy, and to discover. The outdoors are available to the public and, because of short distances, one can move rapidly from village to village in ever changing scenery from open fields to forests.

The beautiful blue Danube helps to set the scene of the countryside reminding us of the Strauss waltzes. The Lorelei tells of the perils of the Rhine river, and high on its banks are to be seen the remainderof medieval fortresses. The slow moving barges remind us of the importance of the river water ways the trade and development of central Europe.

One is immediately impressed with the historical aspects of the country. This is where the stories of the middle ages actually took place. The remnants of the old castles tell of the old feudal systems. In the latter years King Ludwig II and others build castles that are maintained by the state and which are open to the public. School teachers frequently bring their classes here to give their students added insights to history.

In America we require our students to learn something of different building styles identified with periods of history. We memorize the distinguishing characteristics of the Baroque, Gothic, Roman, and Roccoco buildings. Here are churches built during these times that serve as models which can be visited and will help the learner form far more accurate concepts than can be obtained solely through the imagination. The southern part of Germany was actually a

part of the Holy Roman Empire. The cathedral in Cologne is one of the largest Gothic structures in the world. The splendor of the baroque and roccoco builders and painters are in evidence throughout south Germany.

It seems only natural that the teachers should capitalize upon the opportunities offered them by the unique characteristics of the country. They receive encouragement from the general public, as well as from school officials, who have a life-time tradition of participating in outdoor activities such as hiking, mushroom hunting, gardening, and in the raising of flowers.

HISTORICAL DEVELOPMENT

The development of outdoor education in Germany dates back to the time prior to World War I when groups of youth were forming clubs known as "Wander Vogel"(Wandering Birds). During World War I the Germans suffered greatly. Due to a shortage of food and farm workers school children were transported from the urban areas to rural areas as farm workers. After the war was over there was much malnutrition and the general health of the school children was very poor. This gave the impetus to some of the educational leaders to look to the outdoors for areas that could be utilized for the building up of the health of the students. Since this early beginning, one of the major purposes for taking children into a resident outdoor education program has been related to the physical and mental health of the children.

The Weg Scheide, the resident outdoor education center for the Frankfurt schools, is a beautiful example of this evolvement. In 1914 the site was used by the military to train troops. By 1920 some of the school leaders were able to acquire the property and started to rebuild some of the stables and barns so that they could be used by school children. In 1920 the graduating classes spent three weeks there in a resident programme. World War II and the Nazi regime had its effects on this programme too, as the military took control again of the area camp, and a refugee camp. While the refugees still occupied some of the buildings, the schools again started using the site for resident programmes. In 1970 they were able to celebrate their 50th anniversary.

Other school districts also recognized the value of rural experiences for urban children. Schools started to acquire what came to be known as Schullandheime (School Country Homes). In an educational conference in Berlin in 1925 it was discovered that 60 such programmes were already

in existence, and they decided then to form an association known as Verbandes Deutscher Schullandheime. This association is active today having national conferences every other year and publishes a journal of outdoor education quarterly. Today they have a membership of 400 Schullandheime.

OUT OF THE CLASSROOM ACTIVITIES

The activities conducted outside of the classroom can be divided into four categories; the school visit; the field trip; the school hike; and the resident outdoor education experience. These will be presented separately as each category receives individual treatment in the published school code.

The School Visit. Frequently a class, usually the graduating class, will make a trip to another city to study its culture and politics. Because Berlin is isolated and because they want their children to view it as their major city the state will subsidize school visits to it. Some of the classes from south Germany will go to Vienna or Paris. While the classes may visit parks, zoos, and aboretums, the emphasis on the outdoors is incidental in the school visit.

Field Trips. Teachers are encouraged to take their classes into the outdoors for specific study purposes. The trip to a farm for the smaller children or the visit to the rock quarry at a time when they are studying rocks and minerals are examples of this. These trips are well organized, and have specific objectives pertinent to the material that is being studied in the classroom.

School Hikes(Wandertage).The school hike differs from the field trip in that its objectives are more general and that they usually last a full day. The school code recommends that the teachers of grade five up devote from six to eight days during the school year for school hikes. This experience is to help better student-teacher relationships, develop good mental and physical health, and to form good attitudes and appreciations for the outdoors.

The Resident Experience. The resident outdoor education centers are usually located in or near a rural village. They can accommodate either one or two classes at a time. They are owned and maintained by the individual schools, parent-teacher groups, or a city or state school district. The City of Munich, as an example, owns and operates four such centers which are available to any school in its system. Individual schools in Munich maintain and operate their own center.

The school code recommends that teachers take their classes to resident centers for a period of not less than two weeks nor more than four weeks. The primary emphasis is upon the social development of the children as well as on health aspects and they strongly feel that a minimum of two weeks is needed for them to attain their goals.

The children take all of their school books and materials with them to the center. Each facility is equipped with classrooms so that the regular classwork can be continued. During a typical day in the "Schullandheime" the teacher will conduct classes during the morning, particularly language, mathematics, etc. The afternoon and evenings are devoted more to recreational and outdoor activities. The schedule for the stay is flexible and the teachers feel free to change it to meet their needs for the day.

The children participate in activities ranging from nature study, orienteering, hiking, playing games, etc. Frequently they will hike to another village to see the church, or other buildings. The uniqueness of the areas are capitalized upon and the special interests of the teachers help determine the curriculum.

There are approximately 400 resident outdoor education centers in West Germany. Youth hostels are also frequently used by teachers for resident experiences for they too have classrooms. There are over 600 youth hostels equipped for school use making a total of over 1,000 centers available to the schools of a country that has approximately one fourth the population of the United States.

The city-state of Bremen with a population of 600,000 has twenty resident centers, available to its schools. The Chairman of their outdoor education association reported that 50 percent of the children enrolled in the public schools of Bremen participated in a resident experience in the 1969-70 school year. In 1964 the City of Hamburg reported that 1,186 of their classes composed of 33,050 students participated in a country school home programme. An additional 658 classes with 18,460 students participated in similar programmes in youth hostels. Another 80 classes used tents. In all a total of 1,886 classes consisting of 53,305 students participated in resident programmes averaging nine days in length.

TEACHER EDUCATION

Teachers are prepared through participation in outdoor education workshops. The sessions last an entire

week and consist of both theory and practice. In the two workshops that the writer participated in, about 60% of the time was spent in the outdoors participating in activities while the remainder of the time was spent on procedures, teacher responsibilities, planning, and theory. During the 1963-64 school year a total of 14 workshops were conducted in the state of Bavaria utilizing the facilities of the youth hostels. Participation was required of all new teachers after the completion of the first year of internship.

RESIDENTIAL FIELD CENTRE PROGRAMS.

P. Herlihy.

A. OUTDOOR EDUCATION IN THE UNITED KINGDOM.

The provisions for Outdoor Education are so many in number, and provided by so many different organizations and people that they have defied all attempts at comprehensive survey. This presentation is therefore a summary and personal selection from the total picture.

	PRE:	1942	1952	1962	1969	1972
Centres carrying out field studies or including in it their activities		8	28	114	193	300

Of these, one half are owned by Local Education Authorities (equivalent to Boards of Education), and their activities are mainly physical outdoor pursuits. Some are owned by Colleges and Universities where concentration is an academic field studies and research. The Central Council for Physical Recreation has a number of specialist centres, e.g. Athletics, Sailing and Mountaineering. Their main attention is devoted to the training of outstanding individuals and to "training the trainers". All these are supported by public funds.

The following organizations are self-supporting. A number of schools(or groups of schools) own property which is used as a base for outdoor education. The Outward Bound Trust has several centres. The Youth Hostels Association has about 24 Hostels which provide special facilities for field studies and many are helpful towards groups wishing to use the Hostels as a base for such work.

There are many organizations which foster various aspects of Outdoor Education. The Youth Exploration Trust--an advisory council which connects several organizations concerned with national and international-scale exploration. The Mountain Leadership Certificate Board administers a scheme for training anyone in safe movement in mountains. Many of the activities undertaken within the Duke of Edinborough scheme are outdoor activities, educational or physical. Organizations such as the Geographical Association the Association of Teachers of Geology and the School of National Science Society assists teachers in subject matter and teaching techniques relevant to field studies and environmental studies. Two national organizations are con-

cerned with general environmental education; the National Association for Environmental Education (formerly, National Rural Studies Association) and the more recently formed Society for Environmental Education.

B. THE FIELD STUDIES COUNCIL:DEVELOPMENT AND ACTIVITIES.

The Field Studies Council was started through division and work of Francis Butler. He was a Schools Inspector, and saw that many subjects could only be comprehended thoroughly if parts of the study were based on first-hand experience. He knew also that there were many adults who would welcome the chance to study natural history topics, for which they had an amateur enthusiasm, under the direction of experts.

Flatford Mill Field Centre was open in 1947, closely followed by three others. Three of the four were buildings in the care of the National Trust, and the fourth was a 19th Century Fort. These and later centres were modified to accommodate 50-60 visitors and laboratories and libraries were provided. There are now nine resident centres and one day centre. The resident centres provide week-long courses for 47 weeks each year; each has a Warden and three other teaching staff. The chief subjects taught are geology, geography and ecology with a portion of environmental studies archeology, art, history, conservation, planning and single courses in a very wide variety of topics. The majority of students are VI form pupils, which is equivalent to your Grade 13, preparing for examination which may gain them entrance to Further Education such as Colleges and Universities.

The Centres are distributed through England and Wales and have a wide variety of landscape. This, together with the different skills and enthusiasms of the staff provides opportunity for a wide diversity of activity. Our articles of association confine us to the "study of topics, serve essential parts of whose subject-matter is out-of-doors" The Wardens have great freedom(within the bounds of making a financial surplus) to arrange their own centre programs and to design their own courses. The result is that the Centres are highly individual though their aims are consonant.

C. RHYD-Y-CREUAU : PROGRAMS AND COURSES.

(1) Types of Course

Fifteen thousand visitors come each year to the nine residential centres; of these, well over half are VI form pupils. It will help to show my approach if I give an

approximate breakdown of the categories of visitors to Rhyd-y-creuau and a few words about each.

	950	VI(sixth) forms(pre Further Education)
1800	300	College of Education Students-Teachers
	250	Younger pupils(9-15 years).
Student Week	200	University students
	100	Amateurs and hand-linked professionals

VI(Sixth)forms Standard Course	Trying to reduce numbers,but only to increase visitors in the other categories.
Youngsters	Enjoyable to teach. Keep us in contact with "what is possible" with younger pupils in both a maximum and minimum sense.
College of Education-Students & Teachers	Most interested in such people because the multiple effect applies and anything of value in our work is spread more quickly. Also enjoyable because people who have a regard for children are usually pleasant to work with.
Universities	Normally work independently of our own staff. Occasional contributors when specialist skills of staff are appropriate masses, insects, glacial morphology, land use and planning. Stimulating for our staff, and provides information for the Centre records.
Adults (Special Courses)	Amateurs - e.g. Art, photography, history, hand-linked professions(Planners, managers of land) e.g. Planning and Conservation. These courses are directed by Centre staff and by specially invited outside persons - particularly the Native Conservacy.
Other Activities	We also take students in the winter period, often for week-end courses, e.g. The Army Outward Bound School; the Royal Air Force Outdoor pursuits Centre, Women's Institute, and Evening Classes. We also occasionally conduct days for local schools. The staff belong to relevant local and national societies and local societies of a sporting or cultural type.

2. The Staff.

Such a wide variety of topic and level of course,

plus the residential duties involve a considerable strain on the staff. This is eased by having a reasonable number of courses directed by teachers and tutors from the schools or colleges concerned. We advise on suitable area for study, access, conservation and safety, but leave the teaching to them. Really, I should prefer our staff to have some teaching contact with all the visiting groups, but this is not realistic with our present staffing ratio.

Fortunately, it is almost a point of honour with our staff never to run two courses in exactly the same way, even for the same category of students at the same time of year. Although this involves more thought, the resulting stimulus more than balances it.

When staff are teaching they should be giving "more than they have got". That cannot be kept up for long so the work is programmed so that a staff member does not have more than two successive weeks of teaching.

Other helpful stimuli are teaching courses at other centres, teaching one or two adult special courses, attending conferences of relevant organizations and our own staff training courses. University courses and the visiting directories of special courses having fresh ideas into the Centre and, of course, our staff gets a great deal back from the students when the teaching is not didactic.

Staff are encouraged to carry out research. An ideal piece of research would be one arising from a problem encountered whilst teaching. One where the work could be carried out at almost anytime of year, where students could be involved in a meaningful way without feeling they were data - collecting gangs.

3. Specific Courses.

All our standard courses include the basic "tools of the trade", investigation methods, subject matter and the revelance of specific experiences to wider problems. However, we often find that the most valuable result of a course is not the information imported but a re-awakening or development of curiosity about and enthusiasm for the subject.

STANDARD GEOGRAPHICAL FIELDWORK(VI FORMS).

Tools of the trade include map, compass, sketching and other forms of recording, air photographs and other equipment and techniques. However, these are not taught until the need arises.

The course includes description analyses at different scales, e.g. view, exposure, specimen and measurement of processes, e.g. river flow and precipitation. The explanation of landforms is a particular interest of mine and we have a range of problems from very easy to exceedingly difficult which the students can tackle.

The relationships between vegetation, land use, soils and landform also form part of the course. Some geological knowledge is needed to answer many of the geographical problems but only the immediately relevant information is given. Settlement study include siteing, situation, functions and history with information obtained from observation and research; we specifically avoid using questionnaires. Coupling settlement studies with how people make their living and recreate leads on to many problems of competition for the use of land and water surfaces. In other words we come against the problems of planning and conservation and the future. There is usually a discussion-argument on this theme in the later part of a week's course. The last day of a course is normally spent in group project - work with reporting back in the evening.

STANDARD ECOLOGICAL FIELDWORK.

As in the geographical courses the equipment and methodological tools of the trade are dealt with as they become appropriate.

This course usually starts from a consideration of the uneven distribution of plants and animals, and their adaptations to different environments. We have equipment to measure a number of environmental parameters so it is possible to test some of the hypotheses suggested by students to explain certain situations. For example, in studying the zovation of seaweeds on a shore, one does not stop at just suggesting that the seaweeds that are recovered for larger periods can resist desiccation better than the ones lower on the shore: one tests it by putting the weeds in a drying area and weighing at intervals.

One habitat is normally used to develop a food web and make an estimation of animal numbers at different trophic levels. It is not difficult to lead on theoretically to the pyramid of liomass and energy, the cycling of nutrients and the flow of energy. Unfortunately we do not have the equipment to demonstrate ecological energetics.

On a different scale, the course also considers

land-use history and the effect of man's activities on soil, vegetation and animals. This leads easily on to problems of eutrophication, water and air pollution. There is always a discussion near the end of the course on conservation and environmental quality.

In this talk I have deliberately treated the courses for youngsters and for college students and teachers lightly because it will be more appropriate to include that in tomorrow's presentation.

PROVINCIAL PARKS AS OUTDOOR CLASSROOMS

W.H. Charlton

My three year's involvement with the provincial park program in Toronto encompassed park operations which included a responsibility for interpretive programs. This job brought me in contact with a number of outdoor educators who created my initial interest in the program. I think it was recognized, some time ago, the important role that provincial parks could play in outdoor education; but, unfortunately, meaningful programs were slow to materialize.

Perhaps a look at the system of provincial parks in Ontario would be valuable background to an educational discussion. There are presently one hundred and fifteen provincial parks in Ontario, and these encompass an area of approximately 16,000 square miles. While area is an interesting aspect of Ontario park programs, we feel that the most significant features are the quality and variety that exist within the system. Rather than stereotyping parks, five classes were outlined in a policy document in 1967. These classes include, primitive or wilderness parks, wild river parks, natural environment parks, recreation parks, and nature reserves. Missing from the system were historic parks which have been added to the program of this ministry through reorganization of the government on April 1, 1972. Each of these types of parks have defined policies as well as development and management guidelines. Through this system, parks people feel that they are able to provide high quality park experiences and I am certain the majority of visitors would agree.

Traditionally, Ontario Provincial Parks were a place to go camp, to picnic and swim. While there is still ample opportunity to participate in these activities, a great deal more has to be added. One significant change in the past decade has been the tremendous increase in visitor services, in interpretive programs and in the teaching of recreational skills. Park education programs are part of this package, but have only been given serious consideration during the last two or three years.

Part of the reason for this late involvement by parks people in the education field was that policy makers felt education should only be the concern of the Department of Education. In master planning Algonquin Park in 1968, the planners proposed an education objective, which,unfortunately,

was rejected. This problem also existed between the province and Ottawa, as the historic park at Ste. Marie Among the Hurons was considered and rejected as an education objective. School groups are now the largest users of that area, which was neither planned nor designed for their use. Fortunately, this problem seems to be resolved and the involvement of government and other groups in education is broadening.

Interpretive programs in provincial parks with an orientation to education are many and varied. The Nature Reserve Program is aimed at preserving and maintaining certain features of our natural environment for observation, research and study. Environmental management is often required to maintain the park feature if successional changes can cause its disappearance.

In other parks, natural zones are used to identify and protect special features. Park interpretive programs include talks by naturalists and conducted hikes, as well as exhibits and audio visual programs. Here the purpose of the program is to stimulate the visitors interest in some aspect of the park rather than present a total package, as would be done in the educational field. In Algonquin Park organized group wolf howls have been particularly successful and owl hoots and otter snorts are now being patterned on this approach. The teaching of recreational skills to park visitors is only beginning, but we have conducted programs on canoeing techniques and camping skills, and I expect we will be starting programs on archery and angling as well as shooting, in the near future. Special events have been organized such as the waterfowl viewing at Long Point, and the Sportsman's Field Day at Darlington Park. Weekday morning childrens' programs have been operated very successfully, catering to children camping in the parks. Church groups and interpretive staff have assisted with these programs which evolve around games, arts and crafts enjoyed in the out-of-doors.

In the specific field of education, limited use of provincial parks has been made by school groups. Most parks do not have special areas or facilities to cater to school groups. Also there is often confusion during regular park operating seasons as to whether a school group is on a recreational or educational visit. School boards have been advised that suitable land areas exist, but little more has been done.

Park staff have now recognized that there is a much greater role to be played by parks in the education end

and significant changes are being considered. In planning parks, education is being considered, and, where appropriate, included in the objectives and the plan. Mr.Colin DuQuemin, an outdoor educator from Welland County, has been participating in the master planning team for Effingham Park with this idea in mind. Information packages on parks are being brought together and will be made available to teachers. Hopefully, park facilities will be provided to cater to school group needs in a number of selected parks. I do not expect that exclusive use by school groups is necessary or desirable.

Parks should be able to provide for recreation oriented outing groups where recreational skills and character building are involved, as well as for curriculum oriented parks visits. In the case of the former, we feel that programs should go a little beyond the recreational experience, possibly including some resource interpretation. Curriculum oriented outings need to be formalized, planned, and should relate to the specific features of the park area. For instance, a visit to the Petroglyph Park area,Peterborough could contribute a great deal to a lesson on art or history but would be of little relevance to orienteering or mathematics.

I would hope that through working together with school boards and with the Ministry of Education, and by broadening provincial park guidelines relative to outdoor education, the Ministry of Natural Resources can provide a meaningful and valuable service to teachers and students alike. I would hope that the participation of this ministry and other land management agencies would be great enough that boards of education no longer will feel it necessary to acquire large acreages of land for exclusive use by school groups. Such a situation in my mind, would be advantageous to the student and taxpayer alike.

If parks are to make this sort of commitment to an educational program then there must be a return on the investment to parks themselves. These returns, it is hoped, will be in the form of more responsible and appreciative park visitors. People who have an understanding, not only of the natural environment, but of man's involvement and dependence on that environment are undoubtedly going to be better citizens and better park visitors.

As everyone will benefit, we must all participate with the Ministry of Education in establishing goals and policies for educational programs so that efforts by the many and varied groups involved in education will not be

misdirected or wasted. A lot has been done but much more lies ahead. We must work together, plan together and together we will reap the benefits.

OUTDOOR EDUCATION: ITS PROMISING FUTURE

Julian W. Smith

One does not need to gaze into a crystal ball to perceive what outdoor education will be as the future unfolds. There will be more outdoor education than ever before--growth in the kinds of programs currently under way--and some significant new developments.

In viewing outdoor education as it has emerged, particularly in the United States. There are two major aspects: (1) education in the outdoors, which encompasses those learnings that occur most effectively in outdoor settings; and (2) education for the outdoors which has reference to the teaching of skills, attitudes and appreciations necessary for satisfying outdoor interests and pursuits. In the first instance, the outdoors serves as a laboratory for learning and is an extension of the classroom. Classroom activities are supplemented through real and direct outdoor learning experiences. Some objectives of education, impossible to achieve completely in the classroom, are realized through the "teachable moments" in nature's well equipped laboratory. Freed from the limitations and abstractions of the classroom, children and teachers engage in creative and exploratory experiences that lie beyond the four walls.

Education for the outdoors offers new opportunities for acquiring skills and interests which lead to lifelong satisfactions and which contribute immeasurably to the worthy and wholesome use of time. This aspect of outdoor education has special implications for health, physical education and recreation.

Education in and for the outdoors has led to the development of an awareness of the natural environment and man's relationship to and responsibility for it through the use of all the senses. In this age, particularly, when great numbers of people no longer have easy access to the open spaces with opportunities for outdoor learning and living, there must be planned outdoor experiences in the educative process. This is the only way it will be possible for those who live in large population centers to learn in nature's laboratory, both in and out of crowded cities. Thus, outdoor education has become a timely emphasis whereby learning in and for the outdoors is an integral part of education--inter-

disciplinary and relevant to many of the learning activities in a broad educational program.

A brief look at some of the forces that have given impetus to the evergrowing influence of outdoor education will help to view the developments that are occurring in this decade. Outdoor education today has been shaped by some of the following influences:

1. The continuing search for learning experiences relevant to the needs and interests of the learner which are consistent with the nature of learning. Outdoor education,often unidentified as such in earlier years, was one innovation which provided direct and real learning experiences. In the United States, for example, outdoor education is one application of the thoughts of educational philosophers and curriculum specialists such as Dewey, Kilpatrick, Kelley, L.B. Sharp of Life Camps, Inc., expressed what has become accepted as a basic premise of outdoor education.

> "That which can best be learned inside the classroom should be learned there. That which can best be learned in the out-of-doors through direct experience, dealing with native materials and life situations, should there be learned." *1*

In the period extending from the late 1930's to mid-century, education in the outdoors was reflected in the growth of resident outdoor education with "school camping" as an acceptable way of extending the classroom. Concurrently, there were developments in several countries such as "ventures in the countryside"--some resident and some on a day basis.

2. The great surge of interest in many outdoor pursuits as a way to escape the tensions and boredom of cities and for the wise use of leisure has broadened the concept of outdoor education to include an emphasis on the acquisition of skills and attitudes necessary for quality outdoor recreation. Thus, education <u>for</u> the outdoors became another mission of outdoor education, namely, to educate a generation of people who have lost contact with and an understanding of the natural environment. In the period of the 50's the teaching of outdoor skills and sports began to become a part of physical education and recreation. This development has given all the aspects of education, a part in and responsibiltiy for outdoor education.

3. The impending environmental crisis and the awakening of the public about the need for care and protection of the

outdoors is giving a great impetus to outdoor education as a way of learning for the future. The earliest developments in education that led to the use of the outdoors as a laboratory for learning and the urgent need to teach people how to enjoy and appreciate the outdoors in participation in all forms of outdoor sports and component skills, laid a foundation for the current concern about man and his outdoor environment. Outdoor education has become an effective way of educating in the affective and psychomotor domains, but reinforced by the cognitive to which outdoor learning adds depth of meaning. No other approach to education holds more promise for changing human behaviour for the improvement of the quality of the environment than outdoor education. Those who love and appreciate nature and have a stake in the outdoors through participation in one or more interests and sports are not only finding greater satisfactions in living but will become guardians of the physical environment that is basic to their outdoor interests.

Outdoor Education Programs in the 70's.

Outdoor education in this decade is showing growth in several of the established types of outdoor education. There are, in addition, several significant new developments, Some of the programs and trends are briefly noted:

(i) Outdoor-related units of study that are included in the regular school curriculum, using appropriate outdoor resources and materials to enrich and enhance the learning environment. Much is being done in elementary classrooms and in the subject matter areas, such as science and social studies, in secondary schools through using outdoor resources in identifying problems relating to environmental quality, particularly in urban areas. Field investigations and trips to outdoor areas of special interest are becoming established instructional activities in many schools.

(ii) The use of the school site and nearby school and community properties such as farms, gardens, parks, forests, streams and other natural areas as laboratories. Field experiences in such settings are appropriate in many subject areas such as science, social studies, communication arts, mathematics, music, and art. Nature centers, environmental studies areas, science field study centers are examples of the many kinds of outdoor laboratories that are developing.

(iii) Resident outdoor schools whereby students and their teachers use camp settings for learning opportunities achieved best in a camp community and outdoor laboratory. This is one of the most sensational and effective forms of outdoor education and offers unlimited opportunities for learnings centering around social living, healthful living, work experiences, outdoor skills and interests, and the application of many of the school's educational objectives and purposes. On school time, and as a regular part of the curriculum, the outdoor school serves to motivate and vitalize learning and contributes greatly to the development of good human relationships, better understanding between students and teachers, and opportunities for democratic living. The outdoor school thus has a greater dimension by combining outdoor learning with active participation in problem-solving in a "child's community."

(iv) The teaching of outdoor-related skills for outdoor interests and pursuits is a timely aspect of outdoor education. Many of the skills and sports connected with outdoor recreation pursuits have lifelong values and are appropriate parts of a broad program of physical education and school recreation. These include casting, shooting, and gun safety, water activities and safety, archery, and winter sports. Other special outdoor interests and hobbies are often associated with schools. Examples are lapidary activities, outing clubs, cane pole clubs, orienteering,science clubs, outdoor photography, astronomy,etc. In many instances, outdoor-related activities are conducted through the co-operation of community agencies, and government organizations. Examples are sailing, skin and scuba diving, junior naturalist clubs, cycling, hosteling, canoe tripping, and creative crafts from native materials.

(v) Adventure and work-learn experiences in outdoor areas for secondary school youth, such as the improvement of the land, forest and game management, construction of facilities, conservation projects to improve the natural environment, and learning outdoor skills and interests, are challenging and effective forms of outdoor education. Somewhat reminiscent of the Civilian Conservation Corps in the United States during the

1930's, a number of school-sponsored programs of this type are proving effective, particularly for potential dropouts who do not thrive on the "academic diet" of the traditional secondary school. Such programs combine purposeful work experiences with practical applications of knowledge and skills in the subject matter areas and activities of secondary schools. An added dimension, is adventure through exciting and vigorous outdoor activities, such as canoe trips, outpost camping, skiing, and others. Some adaptations of the Outward Bound programs seem to add desirable ingredients to outdoor education, particularly for secondary school and college age youth. The current interest in survival types of programs and activities is one of the dimensions of outdoor education that is attracting the interest of older youth and adults.

(vi) The increased interest of the public in all forms of outdoor sports and activities has prompted adult and continuing education and community recreation agencies to offer opportunities in outdoor education. Family camping clubs, for example, provide ways for those interested to acquire camping skills, information on camp sites, historical and scenic attractions, practical information about planning trips, and the design of camping equipment. Displays of equipment, family camping shows, trading posts, and courses in family camping are increasingly popular features. Other examples include adult education courses in fly tying, lapidary activities, shooting instructions, archery, boating.

(vii) There are an increasing number of outdoor education in-service education programs for teachers and leaders being conducted by local schools, colleges, and universities, and professional education agencies. Most of these are conducted in outdoor settings where participants may have good experiences in the outdoors which will help develop self-confidence in outdoor teaching.

Outdoor education, as it is developing around the world generally, and specifically in the United States, is in keeping with the basic principles of learning and with the best curriculum practices. The "reaches" of outdoor education are inherent in the objectives of education and are implemented through direct and concrete learning experiences

within the cognitive, affective and motor performance domains of education. Outdoor education appears to be making its unique contribution, however, in the affective domain. This is particularly significant in assessing the contribution of outdoor education to environmental quality. Some of the outcomes of outdoor education, as observed by many experienced teachers and administrators, are -

- better self concept(self-realization)
- awareness of and respect for the natural environment.
- adventure in learning
- better human relationships and more effective communications
- behavioral changes(social; teacher-student and student-student; care and protection and improvement of the physical environment)
- lifelong interests and skills for the constructive use of time
- creativity
- development of the inner man(spiritual)

Teacher and Leadership Preparation.

Concurrent with the growth and trends in program development in outdoor education has been the impact on teacher and leadership preparation. There have been significant changes in the preparation of teachers and leaders for outdoor education in several directions:

1. The interdisciplinary approach and interdepartmental co-operation in the preparation at both the graduate and undergraduate levels, whereby those interested in outdoor education are exposed to a wide variety of experiences in appropriate subject matter fields and activities.

2. Modification and adaptation of existing basic courses to include information and experiences relating to outdoor education.

3. More field investigation activities in appropriate areas of learning such as science, social studies art and others.

4. Student teaching and internships in schools and communities having on-going outdoor education programs.

5. Graduate programs, in which outdoor education is

an area of emphasis, for administrators, supervisors and co-ordinators of outdoor education. Examples of such major fields are HPER,Curriculum, Administration, Elementary Education, Continuing Education, Guidance and Counselling.

There are and will continue to be an increasing number of good leaders who keep outdoor education as a practical and sound part of good education. There are many ways that strong leadership can be given in the nations of the world. Professional education associations, government, universities, industry and other interested groups and organizations representing education, natural resources and facilities, by working together, can provide leadership and the necessary resources in outdoor education for increasing millions of children and youth.

An example of national leadership in the United States is the Outdoor Education Project of the American Association for Health, Physical Education, and Recreation. The Project is a business-industry-education venture, which since 1955 has been a spearhead effort in leadership preparation, program development and the preparation and distribution of instructional materials. As a result, thousands of school and college administrators and teachers, physical education, recreation, camping and conservation leaders have been involved in workshops. Hundreds of new programs of varying kinds are now under way as a result of the Outdoor Education Project.

Directions for the Future.

The contribution of outdoor education to the improvement of learning and to the growth and development of the individual are increasingly significant and constitute one of the most important trends in education in the past several decades. The most far-reaching trend for the future rests upon the visions and dedicated services of the leaders such as those assembled in this conference. Outdoor education can and is becoming one of the greatest forces for developing better human relations and understandings of diverse peoples and cultures in our world. The love and appreciation of the physical universe--the challenge and adventure of vigorous outdoor sports and interests -- tranquility, peace and spiritual growth -- all of which may occur in the forests,on the waters, and upon the mountain tops--constitute a common bond among us. Thus the interchange of ideas in international conferences--crossing of national boundaries to participate in camping and other outdoor activities, and summit meetings of those who see visions of peace and harmony,may

well find beginnings in this decade. Our challenge is eloquently expressed by Aldo Leopold when he said that our job is "not of building roads into lovely country, but of building receptivity into the still unlovely human mind." [2]

1 *L.B. Sharp, "Introduction" to Outdoor Education for American Youth (Washington, D.C.: AAHPER, 1957.)*

2 *Aldo Leopold, A Sand County Almanac (New York: Oxford University Press, 1966, p.220*

GOVERNMENT PARKS SERVICES PROGRAMS.

Ron Nagel.

"Without Boundaries" was a very appropriate theme for a conference on Outdoor Education from my viewpoint. The challenge of outdoor education is going to become increasingly complex and diversified, and will play a major role among the myriad of local, state, and national activities dealing with environmental quality.

Many of our problems of environmental quality relate to the sheer numbers of "recreating" people, who have more leisure time, a great diversity of interests, and are coming from an increasingly affluent and complex technological society. By the year 2000 it is estimated that the demands for outdoor recreation will probably triple. At the same time, the demand upon our resources of land, water, air and minerals will also triple. To keep all the complex technological, sociological, and environmental relationships in balance is going to take a more informed and educated society.

The Michigan Department of Natural Resources through its parks interpretive program and Information and Education programs has pledged to work towards this end.

The State Park Interpretive program was established to help provide visitors with an understanding of the natural or historic value of the parks; therefore, making their stay more meaningful and enjoyable. These aims are being met by the usual means of guided hikes, evening programs, auto tours, self-guided trails, visitor centers, and nature centers. In the past few years it is becoming apparent that another visitor need exists in the parks. The interpretive programs can inform people of their resources and give them an understanding as to their value, but this information cannot be used in many instances due to the lack of necessary skills.

To fulfill this need for training in basic outdoor skills, an activity program has been investigated in many of our larger parks and recreation areas. The activity programs consist of programs such as how to fish, how to gather and prepare edible plants, how to build campfires, and even how to use the camping equipment that is brought into the campgrounds. The activity programs were originally designed for children, but the adult response to the program has been more

than gratifying.

The Outdoor Centre program came about when the state was left with Civilian Conservation Corps and Works Progress Administration camps in many of its larger recreation areas. Utilizing these facilities rather than tearing them down was the main emphasis at that time. The department at this point made these facilities available to non-profit organizations for use as summer camps.

In 1948 Dr. Julian Smith helped organize the first school camp experience in Michigan. From this time on, the Outdoor Centre program has grown. The demand for these facilities by school groups grew to such a point, that in 1956, a new Outdoor Centre was constructed at Proud Lake Recreation Area and buidlings were winterized at other locations. Now after over 25 years, we are reserving these facilities for a year and a half ahead of time, and the requests for use of these facilities has reached capacity. One school system has even built its own Outdoor Centre recently because we felt we couldn't reserve our centers for one school 3 months in a row, while turning down requests from other schools for a week at a time, who wanted to get started in a school camp program. Currently over 246,694 child days of high quality Outdoor Education experience is being provided at the states 15 Outdoor Centre's. Since we turn away over 700 group applications each year, we believe this program should be expanded to meet the existing demand. New Outdoor Centre facilities are now being planned at other major recreation areas to meet this demand, along with upgrading and enlarging existing facilities.

I would also like to take this opportunity to note that the quality of programs by the groups using our facilities has also been improving. In the last few years, the increased awareness of environmental problems has added a new dimension to some programs.

HISTORY OF OUTDOOR EDUCATION IN THE PLYMOUTH COMMUNITY SCHOOL DISTRICT

In November of 1951, many teachers and several boards of education members from the Plymouth Community School District were afforded an opportunity to spend a week-end at the Higgins Lake Conservation School. Mr. Ed. Ray, director of the school gave a very challenging program on the responsibilities citizens and teachers have in conservation of the natural environment. Many of us left the Higgins Lake Conservation School with sobering facts of conditions in our natural environment resulting from ignorance by the citizenry

of Michigan.

Miss Kathryn Bock, sixth grade teacher at the Bird Elementary School, returned with much excitement and zeal to put "action" in the challenge given her at Higgins Lake Conservation School. The words, "How do I enlighten the citizenry to an understanding of their responsibilities to our natural environment?", were deeply embedded in her mind. These words were the basis for her asking permission to involve her sixth graders in a School Camping program.

With permission from her principal, Mrs.Nancy Tanger, the superintendent of schools, Mr. Russell Isbister,and the Plymouth Community School Board the "Pioneer Camp" was conducted at Island Lake Group Camp site April 28 - May 2,1952. It was a tremendous success as revealed in the camp evaluation by the students, teachers and parents after the outdoor education experience.

During the remainder of the 1951-52 School Year many of the other sixth grade teachers and administrators visited other outdoor education programs at Clear Lake, St.Mary's Lake, Mill Lake and Cedar Lake, being conducted by other school systems in Michigan. The value of these programs and its philosophy were unanimously accepted by all of the Elementary Schools in the Plymouth Community School District.

The School years of 1952-55 all sixth grade youngsters were given the opportunity to attend the Outdoor Education Camp at Island Lake Recreation Area near Brighton, Michigan. The camp arrangements and organization of the program were under the direction of Mr. Arnold Pylkas, the elementary school physical education teacher. The classroom teachers were responsible for the pre-camp preparation, post-camp follow-up and collection of camp fees.

The years from 1956 to 1958 we did not have a camp director, so each individual building was responsible for its entire program, arrangements and organization while at camp. It was during these years the responsiblities became too great for the classroom teacher to have enough time in her schedule to develop an adequate program with the State limiting the availability of its resource men. Thus the enthusiasm for Outdoor Education began to wane some by teachers, but the desire to continue in it by others caused us to take a second look at the program.

Several teachers and elementary principals had a meeting with our Superintendent Russell Isbister to seek help in what could be done to continue the Outdoor Education

Camping Program. It was decided a director was needed to administrate the program in the area of organization of program and camp arrangements. Mr. John Howe, our Physical Education teacher, was given this responsibility.Following Mr. John Howe the directors of our schools'Outdoor Education program have been Mr.Thomas Workman, and Mr.Paul Cummings.

Plymouth Community Schools Outdoor Education has made great strides under the direction of the above men's leadership in both continuity and depth of program.

Over the years, we have found there is no question but that Outdoor Education is here to stay. Very few will challenge the value of its program or the worthiness of the objectives. It appears, that there was not the usual lag between acceptance of the idea and practice. This has been largely demonstrated in the phenomenal growth in the number of schools that are providing a camping experience for children and youths in Michigan and the Nation.

DAY CARE CENTRE PROGRAMS

FOREST VALLEY OUTDOOR EDUCATION CENTRE-SECURITY AND FREEDOM.

Ralph Ingleton

Description and Background.

To promote the concept of outdoor education and to provide the necessary leadership to make it function, North York decided to lease a day camp in the borough for this purpose.

Forest Valley is an "outdoor education centre" located in the river valley of the west branch of the Don River. The site contains 118 acres comprised of private land, a greenbelt and hydro greenstrip. The facilities for the centre are located on 20 acres of private land which is a day camp in summer months. The Board of Education for the Borough of North York leases this camp and has access to the greenbelt and hydro properties. The site, being centrally located, is within easy access to nearly all schools in the borough.

In 1966-67 the board leased Forest Valley as a pilot venture to provide outdoor experiences for children from "inner city" schools. The following year the board decided to lease the valley and open it to all schools in North York. A system of transportation was arranged, and immediately schools began using the site. The table below indicates the increasing use:

Sept. 1967 - June 1968-32,800
Sept. 1968 - June 1969-58,500
Sept. 1969 - June 1970-79,200
Sept. 1970 - June 1971-68,000
Sept. 1971 - June 1972-64,000

Pupil usage is at the maximum Forest Valley allows -approximately 400 pupils per day. Bookings are filled at least three months in advance.

Teachers have found Forest Valley a convenient site to visit because of several factors:

1. All transportation arrangements are made by Forest Valley.

2. Equipment and supplies are available upon request.

3. The teachers are available for planning and executing outdoor programs.

4. There is a library of books and resource materials to aid in planning.

5. Forest Valley has an intersting combination of natural environments including hardwood bush, swamp, meadow and river valley. There is abundant wildlife and the geology is unique!

Orienteering courses are laid out in the valley. There are four areas for outdoor cooking.

Teachers appear to gain confidence in working with their classes. They often move back to their own schools and use the community Outdoor resources. Their experiences at Forest Valley have made them aware of the human and material resources essential to their programs. Self-confidence is the prime factor in improving Outdoor Programs.

Professional Development.

The staff at Forest Valley are involved in supporting outdoor programs related to the school environment. The site manager and the teachers from Forest Valley visit several classes each week. This"off-site" use of staff has expanded the role of Forest Valley in the outdoor program. It indicates the need for consultants in Outdoor Education.

The staff at Forest Valley are involved in giving Professional Development courses related to camping, canoeing and specific activities related to geography, ecology, history, and Physical Education.

Despite the increase in rental from $30,000 per year to $50,000 per year, pupil costs have decreased. The lease provides use for the entire school year allowing for after school and weekend programs. Besides being an Outdoor Education Centre, Forest Valley is used almost daily for professional development activities.

Facilities.

Forest Valley is a multi-use site. The main building contains offices, auditorium, washrooms, kitchen facilities and a lounge area complete with fireplace. The two portables located on either side of the large parking area provide office space, a staff planning area and storage space for the variety of equipment kept on the site.

Two large A-frames are heated to provide winter work areas for students. Other small shelters dot the area and provide shelter for classes who are working strictly out of doors. A single unheated building contains animals, such as rabbits, guinea pigs and geese.

The primary play area contains tree houses, slides and a variety of commercially produced play equipment. Rope swings hang from appropriate trees. An outdoor stage is also available for classes.

Equipment for Outdoor Activities.

There are two types of equipment available. Equipment is provided for classes on a day basis or on short term loan. Classes visiting Forest Valley require ropes for climbing, compasses for orienteering,art materials, tape measures, trundle wheels, snowshoes, toboggans, binoculars, hand lenses and others. Because some children come inadequately dressed, rubber boots, mitts and rain wear are supplied. Teachers who wish to take children on overnight trips can borrow tents, sleeping bags, ground sheets, cooksets, compasses, camp stoves and other camp equipment. A lay assistant is assigned to work as equipment distributor. Because the equipment is on loan to all schools in the borough, a system of accounting for it has been developed. Repairs to most equipment is done by the vocational school classes at their schools. Vocational classes have built such items as fire pits, grills, boot racks, tent pegs,and a suspension bridge crossing the river. They constructed a maple syrup house on the property, and installed the evaporator. Over six thousand children observed and participated in the maple syrup operation at Forest Valley last year. This year we intend to enter our syrup at the Royal Agricultural Winter Fair. Students returning this year show pride in what they have done.

Resource Books.

Two types of resource books are available. There are field guides for pupil reference and professional books for teachers to use in planning outdoor activities. Resource books are available for day use or on short term loan.

Orienteering.

Several orienteering games are available. This sport provides a challenge to the individual who must use both brain and body to beat the clock or other opponents.

Several courses have been set out in the valley and certificates of achievement given to successful orienteers.

Wildlife.

Despite its urban location, Forest Valley boasts abundant wildlife, particularly birds. Native rabbits, squirrels, chipmunks, skunks and other animals are seen regularly. Pheasants, jays, chickadees and many other songsters are reported daily. Migratory birds are in evidence in spring and fall.

Other Aspects.

The wooded ravines, the river, the swamp and the meadow provide for study in open spaces. They also provide locations for movie making, wildlife photography and outdoor drama. The cliff-like apartments soaring skyward at the edge of the valley serve to remind the child that man can drastically change the landscape, burying the natural environment with concrete and asphalt. The planes, both military and commercial that roar overhead are indications of man's powerful technology. Unfortunately the polluted river interfers with the child's image of the "natural state" of things. The valley is a place to learn many aspects about life.

The Staff.

The permanent staff at Forest Valley includes a site manager, two teachers, one lay assistant, one stockkeeper, one secretary-nurse, and two custodians. The site manager functions as:

1. administrator
2. supervisor
3. consultant

As administrator he must procure needed supplies, maintain the existing site in good order and account for the budget. He must supervise all functions on the site, as well as the staff. Because the site is large and open, supervision is difficult to ensure. The children are involved in relatively risky adventures and this makes safety difficult to maintain. The professional development activities at Forest Valley must be supervised.

Good relations between the owner of Forest Valley and North York must be maintained. The manager must communicate regularly with the owner to discuss improvements

and repairs to the site.

As consultant, the site manager is available to meet with teachers and schools to help in developing outdoor programs. Because "outdoor education" is a growing aspect of education, heavy demands are made on the site manager in this capacity. Whenever possible his two teachers also provide leadership in this area.

Many boards look to North York for assistance in developing outdoor programs. Several visitors come each month to discuss programs with the Forest Valley staff and the Co-Ordinator of Outdoor Education.

The two teachers on staff assist the manager in the leadership function. They are assigned to schools who visit Forest Valley and act as group leaders for classes. The lay assistant also acts as a group leader and helps care for the equipment. The pupil-teacher ratio is kept at 1 to 15 where possible. Principals, vice-principals, resource teacher, student teachers and interested parents often assist regular class teachers with outdoor programs. Two volunteers from Toronto Teacher's College spend a week at the site when not assigned to "teaching weeks".

To foster integration among schools, elementary schools are contacting their local junior and senior high schools for the purpose of engaging the senior students to work with elementary students. This plan has proved beneficial to all concerned.

In speaking of trust, teachers know there are certain activities one can count on at Forest Valley besides the transportation. They know that a child without boots or mittens or even a raincoat can be looked after. They know that a child with a cut, burn or wet socks can be cared for. The hot chocolate machine even makes good stuff.

They know there is a staff member from"the valley" to help them, to plan and execute their activities at the site if they ask ahead of time. There are a dozen more reasons related to a feeling of security teachers have about Forest Valley.

As the person in charge it makes me feel good that teachers want to use the site, but economics and public opinion against excessive educational costs have caused basic problems. It means that myself and the two teachers on staff work in a school for one day per week. Involvement in these schools has been most beneficial but it means that Forest

Valley is left to itself. It means that Forest Valley may cease to function in two years time. It also means that part time help cannot be provided to check and care for equipment. It means reductions in some basic essentials such as improvements to buildings.

Forest Valley also supports school camping programs. A supply of 110 tents, 175 sleeping bags, ground sheets, cook sets, pack sacks, etc. are available upon request. Caring and checking this equipment is a large task. An even greater effort must be made to teach teachers how to conduct good school camping. Unfortunately the staff of Forest Valley is called upon to help teachers develop these programs thus taking more time away from essential services on site. The off-site loan business is a burden. Steps to eliminate most of the stock from Forest Valley are proceeding. It is my opinion that with the great demand to use the site as a day centre the best service should be provided there. If the programs expand into the realm of camping and loan then a separate department must be developed.

Summary and Conclusion.

An outdoor education centre like Forest Valley is simply a facility which is available for teachers to use with their classes. The methods used by teachers coming to Forest Valley vary with the number of teachers. Essentially many teachers come with the idea of experimenting with outdoor education. They have vague notions what outdoor education is and how it can provide learning experiences. At first, they work with the assistance of Forest Valley staff, then as confidence grows they integrate outdoor education with classroom lessons. Forest Valley is a training centre for teachers while at the same time offering children good outdoor experiences. Teachers who become confident in the outdoor method often begin using their local community as a learning environment and discontinue visits to Forest Valley. The staff at"The Valley" encourage use of local environment, because they present a more realistic learning situation for the child. The more a child understands his community, the better he will understand his relationship to it and other communities.

Outdoor education is not new. It is a method of unlocking the classroom door. It is a method of bringing reality into learning. John Holt states:

> "Experience so far makes it clear that when we use a child's natural desire to explore the new and unknown, and to gain some control

> over it, without trying to force him faster and further than he feels ready to go, both pupil and teacher have the most fun, and make the most progress."

At Forest Valley there is a rope hanging from a large tree which leans out over a deep gully. Sometimes you will see a child looking at the rope wondering whether he would be capable of enjoying a swoop out into space while dangling from the rope. Some children take a pole and retrieve the rope and stand looking out and down on the brink of the gully. Some let the rope go knowing they are not ready. Others grasp it tightly and swing out and back in a long arc. When they land they have changed and know it. In the final analysis, we must all learn to discover ourselves. Outdoor education can make it happen.

RESIDENTIAL FIELD CENTRE PROGRAMS
THE ISLAND SCHOOL

Ted Currie

Adults who cherish memories of happy childhood hours spent discovering nature in neighbouring wooded lots will understand something about what happens to Grade 6 students from the city who spend a week at Toronto's Island School.

In a day when neighbouring wooded lots are not very plentiful, youngsters often have little real knowledge of their natural heritage. The Toronto Board of Education recognized this fact back in 1960 when it established the Island Outdoor Natural Science School and included studying the out-of-doors as part of the regular public school curriculum.

Each year over three thousand girls and boys benefit from the experience provided by the school. It's an exciting adventure away from home,in which they discover many new things about themselves, their classmates, and their teachers, as well as getting a first-hand look at nature itself.

The school is ideally located on one of the park islands that circle Toronto's harbour and is only a short ferry ride from bustling downtown streets. The school sits between a quiet lagoon and a sandy beach overlooking Lake Ontario, with acres of natural parkland all around. In this enriched setting for learning, students become deeply involved with their environment. Within this real environment they see, hear, touch, and smell with a new awareness.

Every Monday morning of the school year, pupils of two grade 6 classes (72 boys and girls from schools in different parts of the city), accompanied by their teachers, arrive at the school for five full days and four nights of living and learning together.

The students are carefully prepared many weeks in advance. They study varied aspects of natural science; they meet a member of the Island School's teaching staff who visits their class, and they take home explanatory literature for parents to read. (Each student pays a token $2.25 for the week at the school, with the Board of Education underwriting the

remainder of the cost.)

Shortly after 9 a.m. the group arrives at the school, and is welcomed by the staff. The pupils soon discover the easy, informal environment of the school - though behind that informality is a well worked-out plan to make good use of every available hour in the week. The staff utilizes the natural elements and living things, the earth, the water, and the sky, to supplement and vitalize the regular school curriculum. The children are encouraged to develop an interest in outdoor sports such as bird watching, bait casting, and archery.

Assisting the permanent teachers, and at the same time learning outdoor teaching techniques, are six student teachers from training Colleges all over Ontario. (A new group of six arrives each Monday morning.) The two home room teachers not only share the teaching, but also bunk in with their pupils in the boys' and girls' dormitories. This round-the-clock sharing of experience enables a new, warmer relationship to develop between teachers and pupils.

Even meal times become learning experiences. The students sit six to a table in the bright cafeteria overlooking the beach. They take turns setting places and serving each other. For the hearty eaters extra helpings are always on hand.

Students are under careful supervision at all time. Four caretakers share a variety of duties including a 24-hour patrol, and a registered nurse is a part of the staff team.

The most common affliction, predictably, is homesickness. It usually strikes on Monday evenings, and is accompanied by some tears. Usually no crying symptoms occur again until late Friday afternoon - and then they come because the week on the Island is over.

Curriculum at the school centres around the natural sciences, and the outdoors serve as both classroom and textbook. Small working groups consisting of twelve students, a permanent staff member and an assisting student teacher, tackle a variety of subjects. The choice depends on pupil interest and environment conditions or opportunities. In the course of a year pupils engage in a wide variety of studies, including astronomy, ecology, geology, ornithology, marine studies, orienteering, night hiking, art work, plant studies, archery, bait casting, geography, survival, cook-outs, and tree planting. There are also trips to a farm and a

filtration plant.

But whatever their activities pupils encounter the more subtle problems involved in group living, the problems connected with the consideration of others, the problems involved in fears and prejudices. Thrown together in a single group with others who have different backgrounds - social, economic, racial, religious - the pupils learn a multitude of unteachable things in a natural and normal way.

Students write about their experiences in a special notebook. At the end of each afternoon they come together to give each other written or oral reports about what they have learned - and how they feel about it. They may also do some written assignments in mathematics, literature, art and social studies. All are related to the Island School experience which, in the weeks ahead, will continue to be studied as part of their regular grade 6 curriculum.

Evenings are spent in a happy, relaxed atmosphere. This is the time for sing-songs and quiet reading, for funny skits and letters home, for night hikes, and viewing nature films.

Whatever the children do, it is part of their week-long immersion in a natural environment.

RESIDENTIAL FIELD CENTRE PROGRAMMES

Ralph Shaw

I would like to open with the following quote given by a very fine old man to an educational conference held in Banff in 1971:

> " My very good dear friends...Was it only yesterday that man sailed around the moon.. And is it tomorrow they will stand on its barren surface? You and I marvel that man should travel so far and so fast... Yet if they have travelled fast, then I faster... for I was born a thousand years ago...born in an age of bows and arrows. But within the span of half a lifetime, I was flung across the ages to the culture of the atom bomb, and from bows and arrows to atom bombs is a distance far beyond a flight to the moon. " *Chief Dan George /1971.*

Folks, you and I are on such a journey through space and time. The children we work with are also on such a journey. McQueen Lake is dedicated to putting pauses or stops in that journey so that we and our children may come to learn about and appreciate the inter-connected relationships of all life; but first, let me tell you about our beginnings:

About four years ago, we badly needed some place to call our own.....We started looking for possible sites.Not an easy problem when you have no money, and no visible source of funds. However, by happy coincidence we were able to make an agreement with the Federal Government, Department of Agriculture, for 480 acres at McQueen Lake and we have never looked back since. The rest of our story you can see by Slides. We consider our centre an Environmental Centre that ranges from valley floor to McQueen Lake and beyond. This covers a distance of over 11 miles and an altitudunal change of over 2500 feet.

One of the places our centre started with was this garbage dump; which maybe every centre should have, but on Environmental Day we worked ourselves out of burrs as you can see. On Environmental Day 500 children, helped by parents and the community were responsible for what you can see here. From this there is a continuing committment to the particular area. Maybe good Environmental Education? As we move closer

to the McQueen Lake Centre we see several examples of poor land use by cattle and associated overgrazing problems., Proper land use and an intelligent working relationship between man and land may be the final basis for our survival on this planet. It is an unwritten law of ecology that given an ideal habitat a species will proceed to make it uninhabitable to himself, here as we approach the centre, we see two such examples:

(i) Deer, high browse line - dead deer in critical winter range.

(ii) Cattle - overgrazing, take over by death cammis and larkspur - both poisonous to cattle.

As one approaches the forest from the grasslands,we pass through many areas that are rich in bird and animal life. Here are some examples: the coyote, a cross fox, golden marnot, a rich pond, yellow-headed blackbird, brewers blackbird, canvas back and red-head duck - somebody is confused!!! Then an eskeu on Lac du Bois, more ponds, now muskrats; it must be emphasized that children are constantly observing and studying these relationships.

In the transition zones from grassland through deciduous forest to coniferous forest we enter the study centre itself. First past a small pond with a rich system of its own and then into the site itself; we have fall colors lightning struck trees, owl tress, bear trees and all the life you would associate with a forest. A Walden type pond, loons insects, bohemian wax wing, Canada jay, woodpeckers, squirrels and squirrel communes, snowshoe rabbit, chipmunks, ruffled grouse, more bears.

Our Day Centre Facilities.

8 toilets, several observation wharfs, resource kits as you can see by poster and display material. Tom Moore Memorial Collection started our insect collection.Children do not collect on site - several sites - Cedar Hall - a story in itself. It collapsed last winter, and was rebuilt this spring by a group of young Mennonite people from the States and Western Canada. John, our construction foreman and possibly more than any other person responsible for our successes in construction.

Our first camping venture, just about a year ago - an old skull - let it return to the soil. A causeway to observe pond life - tadpoles, frogs. Is this a population

explosion?

We have seven miles of nature trails in the day centre that were developed by our first O.F.Y. Program. This series of slides takes us along the blue trail that is shown on our maps.

The Teacher Environmental Education Program, now in its second year under the direction of Dr.Milton McLaren, has been an outstanding success. It is led by a completely inter-disciplinary team and covers all aspects of the environment. These people are orienteering, plane table mapping, and collecting insects. We have the heritage of the past in the form of old buildings and artifacts.

You might at this point wonder what children do at the site. Well, if you have a bum arm, you make friends with a squirrel - otherwise you may study rocks, fossils, pond life, get water from the well, cook, observe pond life, enjoy a camp fire, or just go off by yourself and study a stream. The black and white pictures illustrate many other activities. Our curriculum is in the process of being printed in the next two weeks.

Our new residence centre is our most exciting addition. We are just completing it now, and it will be officially opened by Len Marchand, our M.P., on October 15th; You are hereby invited. This is what our resident cabins look like. They have been planned to fit into the landscape, and the forest. As noted in the buff sheets, they were made possible by the L.I.P. grant and community support. Here are some of the groups... The Kamploops North Rotary Club, The Kamloops and District Fish and Game Club, the O.F.Y. Young People, the Young Mennonite People, our own L.I.P. crew and the Press, and just a host of people from all walks of life.

We are committed to the belief that children should learn about life systems. We are fortunate that the Adams River Run is near us. Thousands of our children have seen it. The salt grass near our alkali ponds are another system.Just plain beautiful flowers. In closing, let me reiterate that McQueen Lake Study Centre is dedicated to the study of our environment. The Dawn Watch, from this summer's Environmental Education Program illustrated in this slide is emblematic of Aldo Leopold's Creed;

> "We must learn to treat water, soil and forests as a part of the community of life."

Under Simon Fraser University Summer Institute led by Dr.McLaren's Program for Teacher Education we may find an answer to this child's question. Time is short and the need is great.

GOVERNMENT PARK SERVICES PROGRAMS FOR OUTDOOR EDUCATION
OUTDOOR EDUCATION IN CANADA'S NATIONAL PARKS

Grant Tayler

If I had been asked, 10 years ago, to address a group about outdoor education programmes in Canada's National Parks, or for that matter, parks in Canada, the discussion would have been brief and the theme would have been more of a selling job for things to come, than an examination of how parks were fulfilling an outdoor education role. Just 10 years ago British Columbia and Ontario Provincial Parks were the only park systems in Canada with established park interpretation services and the National Parks Service had just begun to offer evening programmes and conducted trips in a few of Canada's National Parks. Today programmes are in operation in most provincial parks systems and in all of Canada's National Parks except those in the north.

As an aspiring park naturalist, I attended a workshop session in Bradford Woods, southern Indiana , in 1959, along with 35 other naturalists representing the United States National Park Service, several mid-western State Agencies, metropolitan park systems, the National Audubon Society, and two or three mid-western colleges and universities. Discussions centred about techniques and media, as they usually do when people with common interests get together, but it was at that workshop that I first gained insight into the true recreational role of parks and the multiplicity of purposes that parks must serve as places where man can turn from his headlong rush into the next decade to pause and regain stability. Our main concern in 1959 was how to create awareness of the values of parks.

Last April, I attended the Annual Meeting of the Association of Interpretive Naturalists at Calloway Gardens in Georgia, the association which grew out of those Bradford Woods workshops. The place was packed with representatives from every discipline involved in the field of environmental education.

I was impressed by the variety of people there,and by the many disciplines now involved in creating greater awareness, understanding and appreciation of the spaceship earth in which we live. Presentations ranged from a discussion of the basic energy flow systems on earth by Dr. Eugene Odum to the use of public environmental awareness to sell soft drinks - the theme "It's the real thing."

In 10-12 short years nature interpretation services have become recognized as an essential legitimate role of parks. Park interpretation objectives have grown with the growing awareness of the relationships between man and land, from simply attempting to interpret park environments to creating a greater understanding of the world environment,and the role of nature preserves in man's scheme of things. In 10-12 years we have come to realize that parks are not "museums" or "islands of green" or "wilderness" or "pleasuring grounds". They are part of our national fibre, a part that sustains quality and provides balance for mankind. If we want to preserve portions of the world's natural landscape mankind must understand the limitations of his environment, - otherwise parks will not survive.

During these twelve years, we have seen a Canadian National Park system of 18 parks, which had been essentially static, suddenly come alive and start to grow to meet the pressures of a more mobile, environmentally concerned society into a 29 park system that represents Canada's major landscapes. The goal of the system is at least 60 National Parks by the year 2000. Today there are 49,800 square miles of land in Canada's National Parks. They vary in area from the 17,300 square miles of Wood Buffalo National Park, home of the largest remaining herd of bison on the continent and nesting grounds of the rare whooping crane, to the 594 acres of rocky islands and islets in St. Lawrence Islands National Park. They range from the vast bogs of Newfoundland to the alpine meadows and mountain panorama of British Columbia's Selkirks. They stretch from sea to sea to sea, from Gros Morne in the Gulf of St.Lawrence, to Vancouver Island's Pacific Rim, to Arctic Baffin Islands' fiords and icecap; from the southern most mainland in Canada at Point Pelee, Ontario, to the Yukon's Kluane National Park with Canada's landscapes; the Canadian shield, prairie, aspen parklands, boreal forests, alpine meadows, winding rivers, lakes, marshes and northern bogs, mountains, caves and canyons, waterfalls,sand dunes and beaches.

Originally national parks in Canada were set aside and developed to attract people to see our scenic wonders and to enjoy recreation in outdoor playgrounds and vacation resorts. As a result not many Canadians knew them or knew of them. National Parks were regional playgrounds or resorts. Algonquin Provincial Park was probably a better known Canadian Park than most of those in the national system.

The ground swell of increasing mobility and affluence changed all of that in the 1940's. With it grew the need for more facilities, properly planned developments and

greater management to meet visitor needs and to protect park environments. The emphasis was still on recreation, however, and some National Parks were still filling a regional recreation need. This pattern of use persisted through the 1950's while provincial park systems began to develop more strongly and more extensively. Finally in the early 1960's the new role of Canadian National Parks began to emerge. Recreation was still a major part of the national park experience, but it began to share its place with a public realization that National Parks are Canada's special places, a wild Canada that affords man continuing insight into his place in the world. They were beginning to fulfill their purpose as stated in the National Parks Act - preservation for the benefit, education and enjoyment of the people of Canada.

Preservation and use are very difficult to reconcile, especially when the demand of the majority of active users is still for modern accommodation with all of the recreational facilities common to life in the cities. Last year 13.5 million people visited Canada's National Parks. More than 70% were day-visitors, people on the move, travelling to see the country and not necessarily to enjoy a special kind of National Park experience. Therein lies the major problem facing National Parks today, outstanding areas which need to be preserved for all time being used by large masses of people, many of whom have not thought about the impact of their demands or their actions. The solution to this problem is a complex one, involving long range master planning decisions about the purpose of each park, the uses that will be permitted, and a communications programme which, when required, will reach all park visitors to create awareness, understanding and appreciation of each park.

There are, then, two main types of education required if national parks are to survive. The first is "environmental education" in which national parks are instruments of programmes to stimulate environmental concern. The second is a park appreciation programme geared to park visitors while they are there, which is called "park interpretation". The two are not necessarily separate. Stimulation of park appreciation can only lead to an aroused public environmental concern.

PARK INTERPRETATION SERVICES.

Because park interpretation services are geared to people entering or using parks, they aim to communicate with people while they are enjoying park features and activities. The purpose is to enrich their park experience through provision of educational, inspirational and recreational

activities, and to gain their co-operation in the proper use and management of national park resources and values. The objective is not to inform, but to make things meaningful, to motivate, to develop new perception, to stimulate thought about the vacation environment surrounding each visitor.

Parks are not all things to all people nor can they ever be. In much the same way the forms of communication must be carefully selected in order to produce that high quality experience. An understanding of the visitor, his attitudes, motivation, and reasons for being there, are essential in the process for selection of the media for communication in interpretive programmes. In most parks the length of visitor stay is very short; the visitor has certain vacation goals in mind before he enters the park, and he is part of a family group. So our media must be geared to provide to a passing parade a brief high quality experience. We must help him to resolve any uncertainties relating to his basic needs, to orient himself and to organize his stay. Then the communications network must guide him through his selected experiences, informing, stimulating, guiding wherever necessary, in an unobstrusive manner.

The methods of park interpretation in national parks may be divided into two main groups - "personal" and "non-personal" services. "Personal services" involve all of those activities in which park personnel come into direct contact with park visitor. Park Gate Attendants, Information Officers and staff on patrol inform visitors and help them to become oriented. Conducted trips, car caravans, boat tours, and bus tours are presented by park naturalists, trained to interpret the park environment for park visitors. This form of interpretation is probably most effective as a means of communication because it brings together the visitor, the environment and the interpreter, who can gear his approach to the perceptions of the group. The visitor may also ask questions, and enter into discussion. Effectiveness, however, is reduced by attendances in excess of manageable numbers.

Personal services also include interpretive talks, not lectures, discussions about the many things to see and do in a park, about the special features of the park that few will ever see, about the major forces that shape and sustain the park, and about the management of the park.

Most interpretive talks are presented in the form of evening programmes at outdoor theatres designed to accommodate audiences of 100 to 1,500 people; they are well attended.

"Non-personal services" involve exhibits, signs, audio-stations, self interpreting trails, and audio visual presentations. We use these media because we are dealing with large masses of people at their leisure and usually over extended distances. Each has their special advantages, but none are as effective as face to face communication.

The key person in our park interpretation service is the park naturalist, who plans, arranges and presents the programs of conducted trips and illustrated talks, who plans the interpretive trails, writes the pamphlets, propose exhibit subjects, prepares themes and narratives, and who provides guidance in the recognition of significant features and areas. He must be a competent natural science specialist who can read landscape and he must be able to communicate his interpretation to a wide variety of people. This combination of skills, talents and interests makes the park naturalist a scarce commodity.

In 1965 the first permanent park naturalists were appointed in 11 parks. To-day there are 34 permanent park naturalists in 23 parks and more than 100 seasonal staff. Last year their programmes contacted about one million visitors.

ENVIRONMENTAL EDUCATION.

The second kind of education is "environmental education", which is by far the more critical for national parks. The theme - "Man must come to terms with the limitations of his environment while there is still time". Early efforts in this regard were labelled "the gloom and the doom" and "comply or die" approaches. They were powerful, attention getting shockers that made everyone stop to think. But all of the communicators, radio and T.V., the press, universities, and government used the same approach so that revelations of man's misuse of his environment are no longer a shock except when it directly affects certain interest groups. What pollution problem aroused you to action in the past six months? Environmental awareness is here. What is required is a massive change in attitude and action.

Attitude is shaped by environment and action is stimulated by perceiving that the environment is threatened. Therefore changes can be made only if there is a basic understanding of the natural processes that control and sustain all of us, and if the individual can relate these processes to his own environment. He can then see and understand the effects of his actions. He becomes much more involved.

Involvement was one of the main reasons for the initiation of a public hearing programme for proposed development plans for national parks. Through this process dialogue was established between the many groups who have a specific interest in national parks. Subsequent discussion in the mass media increased public awareness and motivated many groups to press for changes in existing development plans. Public hearings will continue and there will be an opportunity in the near future for the people of Canada to express their views about the overall purpose of National Parks and suitable kinds of park use.

This environmental concern message is also a basic element of every interpretive programme in each national park. Park naturalists are discussing the basic processes that shaped their park. They relate those processes to the scene before the visitor and they draw parallels by referring to situations "back home" that rely upon the same processes. They discuss the role of National Parks, recreation, the reasons for zoning of land, and the impact of man upon National Parks.

The most obvious place for environmental education to begin, is with children. Our efforts, however, to fit National Parks into their educational flow have been minimal. I hope that this is understandable when one considers that almost all of our educational effort has developed since 1965 and that our first concern was to reach the 13.5 million people now using National Parks.

We have become involved in school programmes as "off-season" activities or as extensions of our regular park interpretation services. These activities, which usually consist of special talks or conducted trips led by park naturalists, are highly successful. Last year more than 20,000 children participated in special programmes in National Parks.

In three parks, special programmes have been developed because of the special talents of park naturalists and initiative by local school groups.

1. Point Pelee National Park - The Windsor Board of of Education (and more specifically Mr. Charles Campbell) is using Point Pelee National Park as an environmental study area. The programmes are monitored and controlled by park staff who also function as resource persons.

2. Fundy National Park - As an extension of the regular summer park interpretation service, the park offers a children's nature programme with activities centred about a children's museum in the basement of the community centre.

3. Elk Island National Park - A few years ago the Park Naturalist approached the Edmonton Board of Education and the schools to offer a school programme on a first-come - first-served basis. The idea caught fire, and within two years the park was overtaxed to handle the requests. As a result a new approach was developed in which the park naturalist set up workshops for the teachers, who were then in a position to schedule and handle their own field studies.

But there are major problems:

1. The visits are usually one shot efforts without adequate preparation or sufficient follow-up.

2. The classes are handed over to park naturalists who are not trained to handle children's groups.

3. The demands exceed the supply. In almost every park the demands for participation eventually exceed what the parks can supply.

4. The objectives of national parks and of the schools may not be compatible.

5. The major urban centres are not near national parks. Therefore a major portion of the student population cannot be reached through this type of activity.

What is required is full environmental education programmes integrated with school curricula in which national parks are a part of the child's learning environment and serve as examples of natural processes that, when understood, can be related to his own environment. In this way the objectives of both the educational system and the park service can be met, activities are consistent with other park programmes, park naturalists can work with teachers, who have the training and knowledge of the levels, courses of studies, capabilities and interests of their classes and who can adapt the park's part of the learning experience to their needs.

Another part of this environmental education programme is our Junior Warden Programme, begun in 1971 as a pilot project in Georgian Bay Islands National Park, and Fundy National Park. In 1972, approximately 100 boys, 16 and 17 years of age spent their summer months in 12 national parks working with park naturalists on interpretation service helping in forest, wildlife and fisheries management, forest fire control and safety. The programme parallels that of the Ontario Ministry of Natural Resources.

Before us lies a serious challenge to preserve our heritage, the essence of our existence here on earth, our natural environment. Preservation requires an appreciation, an understanding of values by everyone in terms that relate to their way of life. We believe that this form of education is the key function of national park programmes if national parks are to survive.

OUTDOOR EDUCATION PROGRAMS SPONSORED BY FORESTRY ASSOCIATIONS IN CANADA

A.D. Hall

Some Background.

To appreciate the involvement of the forestry associations in outdoor education it is helpful to briefly review their structure and development.

The Canadian Forestry Association was founded in 1900 as a national conservation organization. It provided the opportunity for interested people from governments, industries and the general public to pool their energies and work for more orderly settlement and resource development. Then - as now - it was clear that there is a need for non-governmental organizations to encourage planned long range management of Canada's resources relative to needs of people and the natural world itself. Early areas of interest included improved use and administration of our land and water resources; more effective protection of forests, the need for shelterbelts in the prairie provinces; the maintenance of forest cover along water courses, and the great lack of public awareness on resource-related subjects. The need for trained resource managers soon became an early point of emphasis and our associations effectively campaigned for professional training to provide them.

As memberships in Canadian Forestry Association spread across Canada, the necessity for more direct regional control of programs became apparent and in 1959 the Association was re-organized into a national federation of provincial groups.

Provincial programs were made the complete responsibility of the autonomous member provincial forestry associations while liaison, co-ordination and special projects of a national nature were carried out by the Canadian Forestry Association.

We were pioneers in many public-oriented programmes subsequently adapted by governments and other agencies during our first half centry. Conservation issues were brought to the attention of the public, governments and industry through various publications, national conferences, through conservation lectures to schools and adult groups in remote areas, given as early as the 20's, through

publishing Grey Owl in 1930, in our magazine Forest and Outdoors.

In the last 20 years, the provincial associations have continued to initiate many programs in outdoor education. There has been continuing expansion, changing emphasis and development of a wide range of outdoor education programs related to regional needs of resources, people and outdoor education opportunities. The struggle for adequate financial support has frequently been a controlling factor in program development.

The following remarks, therefore, cannot be comprehensive, but will illustrate some of the ventures in outdoor education presently carried out by the forestry associations as well as some of the trends in program development across Canada.

Throughout the history of the Canadian Forestry Association and member associations some principles are evident in most programs: (1) Emphasis of individual responsibility for wise use of natural resources such as good personal behaviour while travelling out-of-doors, and the obligation to be adequately informed before speaking out on public issues. (2) Environmental awareness must include an appreciation of man relative to resources and the management of these resources requires complex and skilled decisions. (3) It is important that people see resource management for themselves and develop a better appreciation of the successes as well as the problems in our use of forest land and related water and wildlife values.

Bringing the Outdoors to the Indoors.

Early in the history of the forestry associations, close relationships were established with schools across Canada. While the travelling lecturer has largely been replaced by new developments in outdoor education, he still forms an important element of the work of some of the provincial groups. In the prairie provinces this year, for example, it is expected that a total of approximately 190,000 students plus 6,000 teachers will attend the special film and talk shows of association staff. In all cases personal responsibility, good resource management practices and class involvement are emphasized.

It is of interest to note that part of the travels of the CPR Tree Planting Car are devoted to school visits to outlying areas. This railway coach is in its 53rd year of continuous operation by the forestry associations, and has

become a familiar sight to three generations of Canadians in the small communities throughout Manitoba, Saskatchewan, and Alberta.

Special tours by car and trailer, invited visits to urban schools, and flights to remote areas have been made possible by close working relationships with school officials and field staff.

Bringing the Schools Out-of-Doors.

The associations were involved early in special projects to bring classroom groups outside to see the real world of trees,lakes and wildlife and to live for a short time in close observation of them and their management.

The Dryden High School Conservation Camp is a unique example of an early - if not earliest in Canada - program of this type. It was founded in 1957 through the co-operation of the local school board, forest industry, provincial lands and forests department and the forestry association. Since 1958 the chief instructor has been Jim Coats, manager of the Ontario Forestry Association. This three day program during the school year takes Grade 10 children out of their classrooms into the outlying area where they can see resources and management in real life. This is a living experience, accepted early as a vital part of the curriculum by the school, it has served as an inspiration and example for many similar ventures across the country.

In a similar"trail-blazing" fashion the first formal Outdoor Classroom held within the B.C. school system was a visit to the Mission School Forest. Canadian Forestry Association of British Columbia was instrumental in organizing and introducing this outdoor program in 1953 as part of the agriculture course in the Mission High School.

Special Outdoor Areas.

Special areas have been set aside as permanent sites to which school children can be brought for one-day outdoor experiences and an early leader in this type of facility was the Manitoba Forestry Association. Their"Conservation Training Area" is a 300 acre tract of land(mostly forested), which serves as a special outdoor centre for approximately 9,000 children each year from the greater Winnipeg area. Here under skilled instruction, groups of children, with their teachers, are given help in tree identification, learn how trees grow, how forest fires are prevented and controlled,and discover nature's wonders along special trails. Started in

1957, this program has been carried out during spring and fall continuously and is being expanded for adults and overnight campers during the summer.

Nature Trails.

Early in the evolution of outdoor education, the forestry associations used nature trails as one method of designing special areas in which outdoor learning could take place. More and more, it is felt that some trails must provide something more than the opportunity to see nature, but must also help students interpret inter-relationships as well as become more aware of the interactions between man and his environment.

A good example of effective use of trails is that developed by the Canadian Forestry Association of New Brunswick. As a pioneer program on outdoor education in the province, the association enlisted the co-operation of various government departments, local boards of education and interested people to provide a one-day outing led by a guide capable of encouraging children to observe forest and related life at first hand. At present five major trails are operating serving about 50% of the total grade 6 population,and plans are underway to develop the remaining eleven provincial centres.

One significant feature about these"paths of discovery"is that the great enthusiasm of young people taking part in this unique learning experience has helped make parents aware of outdoor education. The young people love to bring their folks back on weekends to share the special things they have seen.

Outdoor Education with Youth Groups.

The Junior Forest Wardens in British Columbia, Quebec 4-H Clubs and Ontario Resource Rangers are youth groups sponsored by the forestry associations in those three provinces. At present, approximately 25,000 young people - both boys and girls - mostly from the age of twelve to sixteen are involved. These programs in citizenship development are based on outdoor conservation programs which include study about the outdoors, safe and responsible travel in it and relationships between forests, water, wildlife, and man himself.

This past year, forestry association youth groups have: planted more than 250,000 trees in both town and country; improved wildlife habitats and streams; established picnic areas for travellers; carried out many silvicultural

projects; learned to travel and camp safely in the forest; practiced how to prevent and control fires (and in some cases actually fought forest fires); visited parks,forestry operations, wildlife management areas and contacted the public out-of-doors to encourage better outdoor manners and responsible forest travel. In addition, provincial associations have consistently co-operated with other youth groups in their outdoor education programs, or provided instructional material to help them.

Special Youth Camps.

Provincial associations operate six major permanent camps in different provinces designed primarily for the use of their youth groups. Here selected members and leaders are brought for one week to twelve days to study and carry out various field activities.

Camp use varies from province to province. However in all cases, it provides the opportunity for members and leaders from widely selected clubs to get together, share their common interests and good fellowship through various outdoor projects and return to their clubs with more background and strengthened leadership.

In the last few years, it is apparent that major facilities of this type can make even greater contributions to outdoor education. For instance, in 1970-71, Canadian Forestry Association of British Columbia made one camp available to schools for a five day residential camping-study session. This led to rentals by 5 school boards. Since association youth clubs use these camps only on weekends and in summer, these sessions during the school term will lead to year round use of their outdoor centres.

From Youth-Serving to Youth-Conducted Programs.

Forestry association programs for young people have in turn produced outdoor programs in which the young adults themselves give leadership to others. For example, in Quebec there are 16 different projects in which young 4-H leaders are providing leadership and direction in local and community programs related to outdoor education. These special projects include special"Rallies Forêt" (outdoor education for children from populated areas), summer camps, a forest education centre and projects in picnic site establishment. Seventy-five students are involved as leaders in these activities which have affected over 20,000 people.

Teacher Training.

The magnitude of expanding interest in outdoor education is forcing forestry associations to devote increasing time and effort to co-operation with and training of teachers, as they recognize that effective outdoor teaching integrated with the school system will require that teachers will have to get more training to help them conduct outdoor classes themselves. In many provinces there are courses which give teachers the opportunity to visit with resource management specialists and programs to get more confidence to conduct outdoor studies.

In 1970 and 1972 the Canadian Forestry Association sponsored national seminars on "Learning Outdoors About Natural Resources". Operated in Ontario and Nova Scotia with the co-sponsorship of the related provincial associations, these seminars brought together teachers, leaders in school outdoor education programs, natural resource managers, provincial and national park personnel, and a wide range of others involve in various types of formal and informal outdoor education. These small seminars have had wide influence ans succeeded in emphasizing the breadth of interest in formal and informal programs related to environmental awareness.

Similar programs and related help for teachers are being carried out by the provincial associations.

Quietly in the Back Door.

As part of their long involvement with outdoor education, the forestry associations have developed considerable instructional material. Their project guides, youth manuals and other visual aids are frequently used by school bodies and others. In addition, outdoor guides for general use such as the "Forestry" section in the Ontario Teachers Federation Outdoor Education Manual, Part 11, 4-H Manuals on different forest management themes, the British Columbia "Resource Reader", "Conservation Activities" of the Canadian Forestry Service have been prepared.

Outdoor Education is everyone's business.

From the various outdoor education programs outlined to this point, is apparent that outdoor education is everyone's business. Although the school system has a role in creating better awareness of the environment and its management, responsibilities for this must also be shared at both the young and adult levels if outdoor education is to attain its full potential.

For all age levels, environmental awareness must be improved. It is a fundamental need for society. Total outdoor education has to provide something more than pure nature study, something more than fun, something more than a recognition of the good as well as harmful ways by which man has had an impact on his environment and resources.

Although the role of the different agencies will change from time to time, the full intent of "Outdoor Education" has such basic and significant importance to the development of responsible citizens that it cannot be left solely to any one agency. Experiences must be shared, initiative and leadership must be shown, and main objectives must be recognized and attained. In all of these, the forestry associations expect to be an active partner.

ONE STATE'S APPROACH TO IN-SERVICE EDUCATION IN OUTDOOR EDUCATION.

Irwin Rosenstein

In-service education is essential to the success of outdoor education, as it provides a greater understanding and appreciation of outdoor education and development of skills, techniques and leadership qualities which will assist teachers in using the outdoors as a laboratory for living and learning.

In New York State, considerable progress is being made in in-service education in outdoor education. At the local level, school districts and community organizations are providing opportunities for teachers and school administrators to participate in in-service education programs through faculty study, workshops and college and university courses. A variety of in-service education experiences are provided by some of the State agencies and professional organizations such as the Department of Environmental Conservation, the Office of Parks and Recreation, the Education Department, the State University of New York and the New York State Outdoor Education Association.

The New York State Department of Environmental Conservation makes available to teachers and other individuals numerous resource materials related to outdoor education.Also through its excellent staff at the Rogers Conservation Education Center, in-service education programs are provided for teachers year around.

The New York State Office of Parks and Recreation has co-operated with a number of school districts and professional organizations in the utilization of State parks as outdoor education centers. One of the most extensive projects involving the in-service education of teachers is conducted at the outdoor learning laboratory in Sunken Meadow State Park on Long Island in co-operation with SCOPE, the Suffolk County Organization for the Promotion of Education.

Many of the colleges in the State University of New York, as well as the State University Colleges at Brockport, Buffalo, Cortland, New Paltz and Plattsburgh have provided a variety of outdoor education experiences for both students and teachers. For the past ten summers, the State University College at Plattsburgh has conducted a 2 week field course in outdoor education for teachers at its Twin Valleys Outdoor Education Center in Lewis, New York. Approximately 500

teachers from 350 different school districts have participated and many have become resource leaders in outdoor education in their local school districts.

The New York State Outdoor Education Association has contributed in-service education workshops, clinics and annual conferences, in co-operation with schools, colleges and community agencies and organizations. Each year, in a different geographic area of the State, the program included many"learn by doing experiences" taught by competent consultants and resource leaders. Last year's three-day conference was attended by approximately 150 teachers, administrators and citizens.

As Co-Ordinator of outdoor education in the Division of Health, Physical Education and Recreation Department of the New York State Education Department, I would like to share with you some of the outdoor education in-service education projects that we have been involved in at the State level during the past few years.

Our initial attempt to assist teachers and others interested in developing a better understanding and appreciation of outdoor education and its values in the school curriculum was through the development and dissemination of curriculum materials. Our first publication was Pathways to Better Education, and this was designed as a public relations booklet for both layman and professional educators. Its purpose was to present in a clear and concise manner an understanding of what outdoor education is, why it is important, and how it can be incorporated into the educational curriculum. Our second publication was Outdoor Education--The Great Outdoors. This publication was developed as a curriculum guide for elementary school teachers,and included among other things information on teaching specific types of outdoor education experiences, utilizing the school site and community resources. Since curriculum development should be a continual process, our most recent publication is Outdoor Education -- A Guide for Planning Resident Programs. This guide was designed to assist teachers and administrators in planning and implementing resident outdoor education programs. Curriculum materials developed in co-operation with our Division are sent to every elementary and secondary school in the State for use as resource materials for teachers and administrators. We feel that our curriculum materials project has been well worth the time and effort, and has resulted in expanded outdoor education experiences in the educational institutions of our State.

Since communication is basic to successful public relations, we also felt it was necessary for our Division to provide teachers and administrators with pertinent information about outdoor education throughout the State and also give them the opportunity to keep us informed about such aspects of outdoor education as curriculum content,facilities, evaluation techniques and in-service education programs. In order to do this, we developed our ECOE Newsletter(Environmental-Conservation-Outdoor Education Newsletter). This Newsletter has been sent to every elementary and secondary school in the State for the past five years, and based upon the comments received from teachers and administrators it has fulfilled our objective as a source for the exchange of information about outdoor education.

Another project that we initially undertook was to assist individual school districts in planning and conducting outdoor education in-service education workshops for teachers. This approach was quite effective, but unfortunately, it was not feasible due to limited staff, time and finances. However, an outgrowth of this project was our Regional Outdoor Education Workshop for Teachers, in which one school served as the host school and invitations were sent to a number of other school districts in that particular region of the State, requesting that they send one or more teachers to the workshop with the hope that the teachers would return to their own school district and generate among their colleagues, interest and involvement in outdoor education experiences. This project has had a very significant effect upon the expansion of outdoor education programs throughout New York State, and we hope to continue these workshops in every region of the State.

Outdoor education can enrich the school curriculum for all types of children. Our Division's most recent in-service education project is being conducted in co-operation with the Education Department's Division for Handicapped Children. Through their Section for Emotionally Handicapped Children two summer workshops were conducted at the Twin Valleys Outdoor Education Center in Lewis, New York. The first worskhop involved a selected number of outdoor educators and administrators of special education programs. The two and one-half day workshop was primarily concerned with showing these individuals how outdoor education could contribute to the education of handicapped children, and more specifically to emotionally handicapped children and youth. An extensive proceedings of the workshop, including resource materials was developed and made available to each participant prior to his leaving the workshop. The evaluation of the workshop by those in attendance was extremely favorable, and led to a second

workshop in July.

This two and one-half day July workshop was designed to train workshop leaders who would be responsible for conducting a regional workshop on outdoor education for emotionally handicapped children and youth in their area of the State. Teachers of emotionally disturbed children, outdoor educators and school and agency administrators were selected to attend the workshop and were assigned to one of the six regional workshop teams, identified by the workshop planning committee. At the completion of the workshop, each team returned to their geographic area to finalize plans for the workshop they will conduct in their area of the State during the coming school year.

Another program currently being conducted by the Division for Handicapped Children is a study to determine the effect of outdoor education on emotionally handicapped children in urban school districts. This one-year project is being conducted in co-operation with the Kingston, New York and Buffalo, New York Public Schools. One of the major aspects of this project is the in-service education program which is being provided for the teachers participating in the project.

There are numerous ways of providing in-service education in outdoor education. I have attempted to present to you some of the approaches which we have found to be successful in our State. We know that there are many other patterns of in-service education that can contribute to the initiation of outdoor education programs and we plan to explore these patterns in order that we may continue to provide additional opportunities for teachers, administrators and other individuals who desire to implement programs of outdoor education.

IMPLEMENTING OUTDOOR EDUCATION
A
CURRICULUM DEVELOPMENT PERSPECTIVE.

Charles A. Blackman.

1. Outdoor education provides an opportunity to extend and enhance the bounds of the learning environment beyond the school walls. It is, both a means to do more effectively what we are now doing inside and a means to add to what we seek to do to facilitate learning. In some ways there are dangers in referring to outdoor education programs if by that title we set this effort apart from the rest of the school.

2. A major key to the implementation of new efforts to enchance learning is on staff development. Without concern for the altering of perceptions of staff, students and community, many a "new" effort or curriculum has ceased to be.

3. If undertaken with such a goal in mind, extending the school to an outdoor setting can be a means of institutional renewal.

4. Our attempts to develop and implement new efforts must reflect the need for an adequate support system - a support system which enables the persons giving leadership to outdoor education experiences to have the understanding of colleagues (teachers, principals, and other administrators, and school staff.) Too often we find ourselves alone, unless we've made conscious efforts to establish such support system.

Some questions to think about.

1. What do we really want to have happen in an outdoor setting? How do we balance our expectations against the possibility that new data from students or from the setting might necessitate a change in those expectations? (Sometimes we so tighten up what "we know" must happen that we exclude the possibility of dealing with new data.

2. Are our claims for the outcome of an outdoor education experience realistic? (Don't claim it to be all things to everyone. Expectations which are too global may tend to create further doubt in the minds of the uncommitted

or the skeptical).

3. Do we really understand the change processes (dynamics), both formal and informal, in our own schools? (Sometimes institutional vehicles presumed to facilitate change and renewal, such as curriculum councils, become a major means to maintain existing systems and programs).

4. How much, and how well, have we explored our own "elbow room" for innovation within existing programs, at the classroom, building and system levels? Sometimes we fabricate our own notions about the "yea, buts", of significant others whom we would see as blockers, when, in fact, they may not care or they may even be supportive.

5. Are we really viewing ourselves as learners as we work with younger learners in outdoor settings? (Sometimes we become so preoccupied with what we hope others will learn that we fail to process our experiences for the learning value they might provide for us).

6. Have we given adequate recognition to ourselves as a significant part of the learning environment of others? (We are more than conveyors of data - we are data. What we are and what we value we communicate to those around us).

7. Are we able to operate on a learning-oriented schedule rather than a convenience or routine-oriented schedule? (The stimulation provided by the resources of an outdoor environment will make it difficult to carry the format of the typical school day to that environment).

8. How do we let routine work for us as a facilitating device and not as a restrictive one? (We need to build in a capacity for renewal-for review - for re-vitalization. This renewal capacity should speak to new outcomes, to a reflection of current social/community issues.

9. Have we made adequate provision for the involvement of students - for our own disposition to hear what students are saying - as we plan learning opportunities in outdoor settings?

CURRICULUM DEVELOPMENT IN OUTDOOR EDUCATION

W.J. Babcock

An interim report of a Pilot project in a Vocational school.

The aim of this project was to use the out-of-doors as a medium through which the staff could better teach certain parts of the curriculum and to establish a climate wherein the staff could achieve desirable relationships with the students.

Don Head Secondary School opened in September 1969 and is York County's first special vocational school. The school was established to meet the needs of those students who have experienced difficulty, particularly in academic subjects, in the elementary schools. Students entering Don Head are transferees not promotions. In general these students come from auxiliary and special classes and have been in elementary school as long as ten years.

Initially we offered Outdoor Education as an option which the students could select as their choice. It has now developed into a way of teaching in many subject areas. In the original treatise it was stated:-

"AIMS AND OBJECTIVES OF THE OUTDOOR EDUCATION OPTION WILL BE:

(1) To promote the development of skills and attitudes that will permit the profitable use of leisure time.

(2) To offer opportunities for practical experience and job training.

(3) Through experience in conversation practices to develop attitudes that will ensure care and interest in the use of our natural resources.

(4) To provide opportunities for community service.

(5) To encourage participation in "adventure" type activities.

(6) To provide an opportunity to learn responsibility through co-operative planning of courses and activities by students.

7. To provide preventive discipline - A totally involved student is seldom a discipline problem.

The course will be designed to be interdisciplinary in nature. Subjects such as English(vocabulary building and language skills); Social Studies; Science; Physical Education Building Construction and Maintenance, Cooking and Food Services; Horticulture, Audio Visual Aids, and even Mathematics will all be intertwined in Outdoor Education.

Facilities - which are proposed to be utilized:

(1) The immediate school yard (landscaping school garden, science observations).
(2) Adjacent wooded area and a large bog and stream immediately west of the school(science - observation and collection of specimens, stream survey etc.)
(3) Conservation Areas - Bruces Mills, Claremont, Albion Hills, Holland Valley, Boyd Park, etc. 24 in all.
(4) Camp properties and facilities - Richildaca, Cedar Glen.
(5) York County Forest.
(6) Farms - (a) Albion Hills and (b) Private farms.
(7) Bruce Trail and Ganaraska Trail.
(8) Local commercial ski establishments.
(9) Local golf courses.
(10) The Mill Pond (within walking distance).

Methods:

(1) Field Trips
(2) Assignments - scrap books, work assignments, home gardens, collections.
(3) Films, filmstrips, speakers.
(4) Recording of outings - It is intended to have the students record each outing through the use of:
(a) Super 8 movie camera on which a sound track can be added.
(b) 35 mm. slides.
(c) Polaroid Land camera.
(d) Tape Recorder.
(e) Written Accounts.
(5) Work experiences - farms, conservation areas, camps parks and recreation areas.

Programme:

It is expected that the programme will be co-operatively planned by the teachers and students involved. Instruction will be provided in swimming, water safety, small

boat safety, canoeing, archery, riflery, trap shooting, skiing, snow shoeing, orienteering, bait casting, fly casting spinning and spin casting, and possibly sailing. Camping, campcraft, woodcraft with over night experiences will also be offered. Outdoor cooking and barbequing should provide a challenge for the food services course.

Fishing, hunting and canoe trips may be offered to students who fulfill qualifications.

Hiking on the Bruce and Ganaraska Trails both on foot and on snow shoes leads one to believe that the students might spearhead the establishment of a York County Walking Trail; perhaps following the routes of the fur traders.

Time Available:

There will be sufficient flexibility in the time-table to allow for large blocks of time to be used when needed for an extended field trip or project. It is expected that a number of teachers will be involved along with the students in working on projects and instructing on field trips. The teachers and students in this way get to know each other more closely. We anticipate that this relationship will do much to enable the students to profit to a greater extent. Through such arrangement the interdisciplinary approach on trips will be readily achieved.

Equipment:

Arrangements may be made to rent equipment from the camp. It is expected that such equipment as fly rods, casting equipment, compasses, Topographical maps, snow shoes and archery equipment can be made available by the school.

Plan of Evaluation:

It is intended to agree on the various dimensions of growth that may be aspired to in such a programme. Then through pre-testing, we shall be able to assess the worth of such an Outdoor Education programme."

Let us examine what has actually happened during the past three years:-

As we stated, Outdoor Education began as an Option and provided such an attractive, viable, worthwhile series of experiences for the involved students that in the second and third years, almost every teacher in the school was involved.

1. The immediate school yard is used for instruction in landscaping, gardening, grounds-keeping,science, mathematics, orienteering, map-making, sketching, snow-studies, outdoor barbecues, courtesy of the food school, snowmobile safety, motorcycle education, and driver education.

2. The adjacent area of a bog, woods and stream has been used for science observations, stream studies, and searching for edible foods. We also have a planned program of woodlot management as a co-operative effort with the owner.

3. We have performed on work projects at Claremont Conservation Area, Black Creek Pioneer Village, and at Albion Hills Conservation Area. Our students were recognized by the Canadian National Sportsmans Show with five different awards for their efforts at these centres.

4. At Camp Richildaca the young people have worked at a number of projects - landscaping and seeding lawns removing dead elms; installing gabions to control erosion, placing brush on hillsides to control erosion, and at every stage in building a series of five engineered log cabins.

   In return they use the camp for outings, picnis, swim meets, leadership training sessions and to prepare themselves for canoe trips.

5. At the York County Forest we have enjoyed trout fishing, and the annual forestry days. Some of our students have also been involved in work experience at the Forest. The York County Board has just announced that it intends to develop an outdoor education centre in conjunction with the County Forest.

6. Several private farm owners have invited us to visit them and see their various operations. Some of our students have secured jobs at these farms.

7. Highlights of our fall, winter and spring seasons are hikes on the Bruce Trail. All students who go on the hikes must attend sessions to discuss the rules of the Trail, and to receive instruction on proper dress and footwear. Our Hospital Service shop provides first aid equipment, and trained operators for each hike. This in one activity in

which we have to rotate the staff supervisors in order to accommodate all who want to hike.

8. We are fortunate indeed to have a qualified C.A.S. ski instructor on our staff, and to be able to use a nearby ski establishment. A reasonable fee covers transportation, rental of equipment, use of tows, and instruction.

9. The physical education department runs an annual golf tournament each spring. They also hold cross-country races along with a cook-out lunch at a conservation area.

10. On the local Mill Pond we hold a winter carnival with competitors from each of our four local high schools. As a warm-up for this, our own school holds its own carnival with tin-can curling, hockey broomball, speed-skating races, and hot chocolate served by the Food School. Of course, a Carnival Queen is chosen.

    Each fall, we visit the pond to identify the various species of waterfowl in their migratory flights.

The program is always co-operatively planned by the teachers, and students. We observe an increasing degree of reponsibility in the performance of the participating students. On all canoe trips, hikes and overnights the student participants have been involved in establishing the rules of conduct by which they expect to be governed. The resulting clear understanding of what is expected leads to few discipline problems.

Our Principal has been extremely supportive in allowing field trips to leave the school; and as promised, large blocks of time are available. Teachers understand that their time for a trip will come and are tolerant of others who leave on a trip and require class coverage. We have had to insist that plans for a trip be submitted for approval three weeks ahead of the intended trip. We have a reasonable budget for field trips from the Board of Education, but in order to stretch it as far as possible, we ask each student to contribute fifty cents toward the cost of transportation for all trips on which a bus is required.

In the opinion of our staff, we have been able to provide our students with an opportunity for physical, emotional and aesthetic experience which they might not

otherwise have had. We have witnessed much improvement in behaviour and the absolute joy of young people using new skills.

Outdoor Education has broadened the curricular horizons at our school, and will continue to provide an exciting instructional medium in the future.

BUREAU OF SPORT, FISHERIES & WILDLIFE ENVIRONMENTAL EDUCATION PROJECT.

Edward Landin.

Speaking the language of schools and teachers is not easy for a layman. This is not because a layman is necessarily uneducated, but because he knows very little about the complex "system" of philosophies, practices, schedules, machinery, materials and associate jargon which is part of contemporary education. Unless you are on the inside of education, it is almost impossible to keep up with or even know about this year's or this week's frame of reference.

Many attacks have been made on this "system" of education, but that is not our objective here. If we can define the immovable yet changing, uniform yet disordered, conservative yet revolutionary profession of education as a system, the "system" is with us.

A group of people who make up a public service branch of the federal government want to talk with this "system." They are not "educators" in the school or the "system" sense of that word, but they do a lot of educating because of the nature of their jobs. These people manage a tremendous amount of public lands which are generally known as wildlife refuges. This is not a perfectly accurate description of their job. Some of the land is reserved for wild life, but a lot of land on refuges is also dedicated for people to use--you and me.

The people who manage refuges work for the Bureau of Sport Fisheries and Wildlife of the United States Department of the Interior. For many years this service has provided hunting and outdoor recreation for the general public, but all the time behind the scenes, they have been conducting ecological research projects, often in connection with colleges and other governmental agencies. Also, because they must manage the land itself for wildlife, they have gained years of practical experience in environmental control.

Because of their own concern for the environment, and because of increased public concern and therefore a change in official governmental attitude and the policy about environment, the Bureau has come to see that it has a unique resource for environmental education. These people do not have all the answers, but because of the kind of work they have been doing, they know how to go about finding answers.

They know techniques and methods for investigating the environment, and they have a lot of land to investigate.

These methods and these lands are available to schools. They always have been, but very few students or teachers throughout the country have known that they could use them.

A problem has come into sharper focus with the increase in environmental concern. This is how to communicate with teachers, schools and the educational "system."

"Do schools really want to use our resources, or don't they?"
"What do teachers want?"
"Is it worthwhile to give the kids investigation on refuges -- or elsewhere?"
"Are our investigation methods applicable to schools--are they <u>good education</u>?"

To answer these and other questions, the Bureau of Sport Fisheries and Wildlife in Region 3, Twin Cities, Minnesota, contracted with the Environmental Science Center (ESC) in Golden Valley. ESC is an education consulting and planning agency which specializes in environmental education. ESC often works"inside"the formal educational "system" as well as with educational laymen.

ESC's job was to find out how the Bureau of Sport Fisheries and Wildlife could most effectively communicate with, and make its resources available to teachers, schools and most importantly, students.

BSFW Region 3 and ESC joined efforts and shared costs for six months from January to June of 1970 to see if teaching methods could be developed which were acceptable and comfortable for teachers using Bureau resources. Also, we wanted to find a way to tell teachers and managers how they could set up EE programs in their communities.

Many conferences, much writing and a series of trial and error methods, with programs and training sessions have produced some means of accomplishing our objectives. Region 3 has contracted with ESC to refine these means--program development, land development, teaching and training programs, expansion and communication of what we have learned to managers and teachers.

One of our first problems was to get school administrators and teachers to seriously consider environmental education as a practice rather than just a topic of

discussion. Offering a new type of resource program to schools involves more than printing a brochure and opening the gates and saying "Welcome." Schools were not set up to do outdoor educating.

Teachers use outdoor resources for students only when doing so seems worthwhile enough to break traditional teaching patterns. There is a complex of influences upon a teacher; a whole social and psychological ecosystem--which determines what they will do with students. If we want to give students new experiences through teacher guidance, we must develop a positive association between these experiences and the factors and factions which influence teachers.

The main influence upon the curriculum or methods of a school is the community. In small towns the popular local understanding of education and how it should work is the strongest determiner of the style of the school.Administrators and teachers live among the parents and civic leaders and are justly but strongly influenced by the local will.

The suburbs contain diverse attitudes, commuting parents, commuting teachers, and are thus less cohesive about education. The strongest influence on educational style in most suburban schools is the "education profession" represented through teacher's organizations and colleges. Suburbs are more open to "new" programs although these programs may or may not represent the desires of the average citizen.

Big city and inner city school systems are influenced mainly by political forces. City Hall and ethnic groups are often competing for control. The politicians control the budget and the budget influences the style of education. So we concluded that if the community can accept outdoor or environmental education, the school can consider it.

The next problem is that few teachers know what to do with outdoor resources when they are identified and available. This is assuming that at least those few teachers now using an environmental education style can assist in identifying resources. The school system was not set up for this. Teachers have not previously been rewarded for this style of education, and there has not been any training available. Teacher training is most acceptable from the college because academic status is still the major influence upon the professional educator. Money and position are tied primarily to academic status.

Our second conclusion is: If the college offers the training, the teacher and the school will most readily

accept it.

The next problem in this sequence is that very few people in colleges know what to do with outdoor resources, let alone know what environmental education style is. How can these colleges offer training?We can influence colleges.

Most colleges and some universities are offering increasing numbers of extension courses as well as departmental "catalog" courses in "environmental" subjects. Environmental concern, need for greater enrollment and more tuition money, and response to community pressure is causing this. A petition from thirty teachers can usually elicit a practical training course with graduate credit. The spokesman for the teachers will have enough influence to choose the instructor, and to specify the course content.

Our third conclusion: If you have money the colleges will be happy to sell you a training course.

How do we get the right instructor and practical course content, involving methods which can be used the next day with students; how do we make environmental and outdoor education worthwhile to teachers and students; how do we approach communities so that they will accept a new style of educating in their schools?"

Communities are people; schools are people; agencies are people. We educate people through experiences; we influence people through individual personal contact. The methods of personal interaction cannot readily be expressed in words only. You will better learn what I mean through experience and personal interaction. So in the time that remains, I ask you to become involved in a friendly interaction which may demonstrate one small aspect of interpersonal or interagency co-operation.

Here follows an informal and somewhat whimsical simulation of decision making within a hierarchy of status, or a "chain of command." A discussion follows the simulation.

THE ROLES OF DEPARTMENTS OF NATURAL RESOURCES IN OUTDOOR EDUCATION

John R. Paulk

To discuss with you the involvement of the resource agency which I represent, that being the Tennessee Valley Authority, I believe I must talk with you specifically about the division which I represent, Land Between the Lakes. It is located in west Kentucky, Tennessee, on Kentucky Lake,and Lake Barkley, two-thirds of the project in Kentucky and one-third in Tennessee. It is a 170,000-acre peninsula lying between these two lakes, Barkley and Kentucky, 6 to 8 miles wide and over 40 miles long. More than 80 percent of that land is covered with an oak-hickory type of forest. It has more than 300 miles of shoreline. These two large lakes are connected by a canal at the north end. Together these two bodies of water have approximately 3,500 miles of shoreline that offer unlimited fishing, boating and water skiing opportunities for recreation purposes.

In 1963 President Kennedy assigned this project to Tennessee Valley Authority as a demonstration. Since that time, we have been working dilligently in making this into one of the few large land masses which serve the public needs in the mid-west region for recreation and outdoor or environmental education purposes.

Within this huge land base we established an Environmental Education Center of some 5,000 acres in size. Located in that area we have an interpretive building which serves as an information station as well as provide displays and exhibits which acquaint the visitor with the historical, cultural and biological significance of this area. This interpretive facility is used by many of the local school systems as they come to Land Between the Lakes for day-use environmental education programs. An educational farm is also located within the area which has been designed to acquaint students and visitors with basic farm activities, especially in the area of animal and agricultural products. Certain times of the year, one can see sheep sheared, and most times of the year can feed rabbits, chickens, and goats, and conduct these kinds of activities with young people. And I should add, it is not a menagerie, it is a farm with a garden, and other things that go to make up a farm. We have set aside some 105 acres to establish this farm. We thought I suppose at first it would be attractive only to inner-city youngsters, and teachers, but we are finding now that inner-

city means Cadiz, Kentucky, a community of about 5,000; Murray, Kentucky, another community of about 15,000; and Hardin, Kentucky, a small community of about 200. So it is serving its purpose well.

The primary facility in the center is called the Youth Station, a resident facility having the capacity for 72 people. Tennessee Valley Authority handles the food service. The Youth Station is a contribution to the field of environmental and outdoor education. Its purpose is to introduce environmental education programming to as many educators as possible. And we are hopeful that through these facilities school systems will be motivated to use their own local resources and school grounds. We opened the Youth Station in April of 1966. By this date we have served more than 20,000 individuals in at least one night's experience. The students coming to us at this time are from Kentucky, Tennessee, Illinois, Indiana, and Georgia; and we have run the gamut of grade levels having 1st graders spending overnights with us through the adult group level.

Presently we have 4 professional staff members assigned to this one work section. Assignments are varied as we work with many public, private and parochial schools, colleges and universities in assisting them in developing programs which will hopefully meet their needs. We have no intention of developing some kind of a national curriculum. We find that there are many fine pieces of this kind of work going on to-day, but I firmly believe as a resource agency, that of the Tennessee Valley Authority is really in the role of <u>assistance</u> and <u>support</u>.

We have recently broadened our program to provide better assistance and support to many of the education communities within the Valley and, of course, outside of the Valley as we are a Federal agency. We have established what we call a Valley-wide extension program of environmental education. It is very high priority in Tennessee Valley Authority. The overall environmental education program is dependent upon all of the divisions for initial and continued input. We are made up of a number of divisions and offices which contribute greatly to this overall environmental education program. Some examples of these are the Division of Forestry, Fisheries and Wildlife Development; the Division of Water Control Planning; Tributary Area Development; Education and Manpower Development program within the Division of Personnel; Office of Health and Environmental Science; and others of like kind.

We recognize too as we speak in terms of environmental education we can go in a number of different tangents,

and as we have set about to develop our program we recognize there are two facets as we see it of environmental education.

(i) Environmental education programs in which individual persons and groups may participate through formal education or within their own discretionary time limits, and

(ii) Environmental education and training for scientific and technological programs having to do primarily with maintaining environmental order.

So to break out for you these two kinds of programs let me outline for you environmental education programs which embrace the full realm of formal education and secondly the development of environmental awareness programs in which individuals and groups then do participate within their leisure time. Through these programs we hope that we will be able to help the participant acquire what we like to think of as: (1) a greater appreciation of nature and manmade physical and cultural environments and particularly his own; (2) a broader awareness of man's place in different environmental systems and how he alters interrelationships within these systems; (3) a clearer knowledge about environmental problems how these problems can be solved and the need for individuals and government agencies to work toward their solution, and (4) a deeper understanding of environmental ethic that will motivate individuals to participate in environmental problem solving. This is the major portion of the program conducted in and from Land Between the Lakes. The second prong, of course, would be the environmental education scientific and technical programs which are concerned with: (1) the technical aspects of maintaining environmental order and (2) bringing the scientists and technologist understanding to bear upon the problem of human organization as it directly or indirectly modifys the environment. And you would find programs under these headings including: (i) ecological systems analysis - Man must understand the dynamic flux of energy through the ecosystem, (ii) environmental control - Reference to these technological activities which are available to modify man's impact on the environment (iii) environmental planning - Possibility of requiring the modification of the individual or group habits as well as the physical environment in which human endeavor takes place, (iv) environmental agriculture - Adequate food is basic to man's survival. Methods for developing the full energy potential of our planet and understanding the nutritional chain in the ecosystem are necessary, (iv) population dynamics - The problems of food, hunger and malnutrition, pollution, urban sprawl, etc., may be directly related to our population increase.

So over the past few years we have worked closely with a number of people in these areas of environmental or outdoor education. I indicated to you earlier that we have had a tremendous use of Youth Station facilities and the kinds of people we have had coming there.Let me describe to you some of the programs that have emanated from this facility and situation.

The Youth Station at this point is fully scheduled with youth groups who come to us between September and early June and throughout the school year. We in Land Between the Lakes and Tennessee Valley Authority assist people in preparing for environmental education programs through the following: (1) Make and maintain contacts with school, college and university officials, local, state and Federal agency representatives, private organizations and community leaders. (2) Assist by planning and conducting research which integrate with ongoing public school curricula and functions. (3) Provide professional assistance leading to land acquisition, planning, layout, and development of environmental education facilities including interpretive buildings, outdoor school laboratories, trail systems and teaching stations. (4) Provide professional, technical and limited financial assistance to bring about self-sufficient environmental education programs for the sponsoring educational institution.

An example of this kind of work in terms of professional and technical assistance, and limited financial assistance--let me describe to you a project which we have recently implemented in northwest Alabama with 13 school systems. In early February of this year we invited several superintendents of the northwest Alabama area which is referred to as the Bear Creek Watershed to Land Between the Lakes to discuss a mutual interest in environmental education. We discussed with them the possibility of an educational co-operative for environmental education. The project is now underway and titled the Bear Creek Watershed Environmental Education Project. Co-operating with this newly formed project are the Bear Creek Development Authority, Bear Creek Watershed Association, Tennessee Valley Authority, and specifically the Land Between the Lakes personnel in its basic organizing. The Bear Creek Watershed Association and the Bear Creek Development Authority earmarked 211 acres of land near Bear Creek Reservoir for this project. Florence State University is assisting in teacher training programs.

We are at present working with a number of other watersheds in the Tennessee Valley and plans now are to implement programs of a similar nature of putting together environmental education programs in watershed areas.

THE ROLE OF CANADIAN WILDLIFE SERVICES IN OUTDOOR EDUCATION

William Barkley

The last fully outdoor educated man was the cave man. By trial and error, he learned about the functioning of his environment. His survival was dependent on his knowledge of plants and animals. His classroom was the outdoors and his teacher was experience. As man became more and more civilized, he retreated from the outdoor classroom into man-made structures; and experience was replaced by the transmission of knowledge by the printed or spoken word. As civilization advanced, man concurrently retreated from the natural world.

Many of us have experienced in our own education the peak era of the retreat from the natural world. In my own training as a wildlife biologist, I can only recall three trips outside the classroom while at university, and none while I was in High school or public school. It rarely crossed the mind of teacher or student that there was a lot to be seen and learned outside. The unspoken philosophy of society reflected in our education system was that man was and is technologically independent on his environment, and the natural world is interesting and a good place to pursue a hobby in, but it's a frill - it's not important or even necessary. Concomitant with this growing industrialization and conquering technology was increased urbanization. Families were leaving the land and concentrating in larger cities. The ties broken with the land, the bulk of our population were less able to understand their environment. Then, as if by total surprise, the media began complicating our lives with threats of environmental decay and destruction. It appeared as though suddenly something went amiss, when in fact the problems of pollution and overpopulation had been accumulating in a predictable way for decades.

Man, no longer a caveman, not understanding or knowing his environment, is left in much of a quandry. Most people don't believe the threats or even understand them,and few see their personal responsibility in surmounting the problems. Thus, though man is still a physical resident of planet earth, most men are mental exiles from a knowledge of how life survives on this now man-dominated planet.

How does all this long pre-amble relate to the role of the Canadian Wildlife Service in outdoor education?

Biologists in the Canadian Wildlife Service became increasingly aware that their problems were often caused by people and not wildlife. The solution to problems was more often to convince people that certain actions must be taken, than to just interpret the research data and recommend a plan of action. One of the most common examples in Canadian Wildlife Service experience is the competition between ducks and grain farmers. Prairie grain farmers seeing thousands of ducks destroying acres of mature crop in the fall are less than sympathetic to suggestions to save prairie potholes for enhancing the waterfowl breeding population. In the back-rooms and in the offices, discussions focused on the problem of how to get people to understand the environmental problems wildlife faces. These discussions ultimately led to unofficial proposals to educate the Canadian public about the Canadian landscape, and finally to official proposals which met with success in 1967 with the beginning of the Canadian Wildlife Service interpretive program.

The role the Canadian Wildlife Service was to assume involved educating people about the total Canadian landscape. This role differs from parks interpretive programs, both provincial and federal, in that the involvement is with typical Canadian landscapes rather than the more special lands preserved by parks. The emphasis is to be on man's influence on the land as well as the ecology. Originally the plan called for a program in every major biotic region of Canada. This called for centres located in places such as the Atlantic Coast, northern hardwood forest, boreal forest, prairies, Pacific Coast, and so on. A chain of centres located near the Trans-Canada Highway, which would make them accessible to the travellers, was envisaged.

As well as theme centres focusing on the ecology of various regions of Canada, other centres emphasizing some special wildlife show(such as the snow geese at Cap Tourmente or the wintering waterfowl at the mouth of the Frazer River) were anticipated.

The most appropriate method to tackle the public education problem the Canadian Wildlife Service was proposing seemed to be nature interpretation. Interpretation had its beginnings in the United States national parks,and from there has spread through park systems over the face of North America. These programs vary in quality but in general they have an impressive record of success. Annually vacationers by the thousands flock to nature centres,attend nature talks, go on guided walks,and in general show their appreciation and interest in these programs by sheer

attendance.

This method has been limited virtually to park systems. Other land use managers have not generally involved their staffs in programs designed to meet this public need for environmental awareness. Slowly, but perceptibly, things are changing and other organizations such as Canadian Wildlife Service, Government Forestry Agencies, Pollution Control Agencies...etc. are becoming aware of the power and usefulness of developing such programs. In my travels around North America in the past year, I saw a pulp and paper company in British Columbia with an interpretive program, a dam construction site with a public works interpretive program, a brewery interpreting a watershed which was their source of water, and of course a myriad of state, provincial, national and municipal programs.

Interpretation is a high sounding name for a rather simple educational method. It has many different meanings amongst practicing interpreters. To interpreters in the Canadian Wildlife Service program, it is defined as a method causing people to explore and interact with the natural world. Like the caveman, we want people to experience their environment, not just to hear about it second hand. It is our contention that the best audio-visual experience doesn't come close to as effectively teaching people about their landscape as lying down on the edge of a boardwalk and watching a giant waterbug pursue a mud minnow. Our job is first to get people outside, and second to sharpen their senses to get them experiencing the Canadian landscape. If the motivation can be started by interpretation, then we see it as the role of outdoor education in its many forms to help develop these inspired individuals' knowledge and understanding. We see our interpretive program as one of the spark plugs, not as the end in itself.

As the name of the branch suggest, we are concerned with wildlife. To most, this conjures up the image of an elk roaming the green mountain valleys, or a polar bear leaping from an iceloe, but biologists know that the soil, the water, the plants, the weather, other animals, and indeed man, are all a part of the complex environmental matrix that make the elk and the polar bear's life possible. Thus, if we are to get people experiencing wildlife, we are really having them experience the general ecology of the Canadian landscape.

Words are easy for most of us to link together,but the actions that must result from these words are more difficult. It sounds great to say we are going to inspire

people into having a greater ecological awareness about the Canadian landscape. But how do we in fact do it or try to do it. As we all know, there are no pat answers and of course there are more failures than successes. I will now elaborate on how we've tried to do it in what became our pilot project at Wye Marsh in Midland, Ontario.

I once worked in a men's clothing store and the boss used to always say: get the suit on the man and he'll buy it. At Wye Marsh we try to do the same - get the people outside, get them to try it out. This means then that the building is not the central part of our program but rather an archway to the outdoors. The purpose of the building and its associated activities is to provide our clientele with experiences that prepare and motivate them to go outside. Two public areas exist in the building, a display hall and a theatre. In the display hall short, attractive displays tell brief and incomplete stories of what is outside. The brevity is necessary because the display hall experience is not the one we want people to spend the most time on. And the incompleteness evolves partly from the need for brevity but mostly because we want people to find out the complete story outside for themselves. In other words we whet their appetite or stimulate their curiosity to find out the complete story for themselves. From some 15 years experience in another system we developed simple display building techniques so that naturalists design and build displays. This is important to our program because it provides spontaneity, staff involvement, and the story in the display hall is continuously changing. We've tried the more expensive professional display area which became an end in itself, was inflexible, and thus static and unchanging, and which generally seemed incompatible with our program and the changing stories in the environment we were trying to interpret.

The Theatre area offers a variety of audio-visual experiences. Films and slide shows are shown at regular intervals. Again we try to carefully select these audio-visual experiences so they relate to what's outside. Here we try to draw the line between what's good entertainment and good interpretation. Whereas good interpretation should provide entertainment, entertainment is not always interpretation. At present we have serious doubts about the value of films in general. Our experience seems to indicate that films as edited views of the environment develop in our public expectations about the outdoors that are difficult to fulfil. People viewing a film are often unaware that the routine functioning of the ecology is cut out of the presentation in favor of the spectacular. We find films tend to make people expect to see an animal or an exotic wildflower around every

bend in the trail. This summer we carried out a research project to find out the differential effects of films, slide shows, and no theatre experience,on our clientele. The data hasn't been analyzed yet, and so we can make no comment on whether the edited view of nature provided by films is beneficial or otherwise to our program.

One of our signs outside the back door proclaims "outside is where the real action is". There are signed trails outside leading through the wet woods that border the marsh. In addition three structures have been provided to assist in seeing a marsh which, as you know, is a difficult landscape to travel around in. An underwater observation room provides for a view of life in the waters of a marsh. The show at the glass like any wildlife show has its exciting moments, but if people walk in, look, and don't see anything immediately, they often think there is nothing to see, and so we have to try and slow them down and get them to sharpen their senses to look at the little things. A tower provides a view over the marsh and offers the story of succession to the observant. Finally, a walk on the marsh is facilitated by a floating boardwalk that takes people from wet fields to open water.

Perhaps the most important part of both our indoor and outdoor program are the personal contacts between our staff and the people who use the centre. In the building both naturalist and information staff are available to answer questions and engage in discussions with the public. Outside staff travel the trails and facilities talking to people and pointing out things of interest. As well a scheduled series of daily walks, talks and demonstrations are provided at regular intervals and a new innovation this past season was the provision of walks and talks for cottagers and people at private campsites off the Centre's property.

What I have described up to this point is our program for the general public. In addition, we provide service for groups. These groups include clubs,and organizations as well as chool groups. The demand for group programs far exceeds our capacity to meet them. In 1971-72 season we turned away approximately 7,000 people.

In our first year of operation we offered our facilities for use of school groups and our staff as resource people. It was left to the teachers to plan a detailed program. This didn't work, and so in subsequent years we have controlled the design and implementation of programs in consultation with the teachers involved. A ratio of 15 students to one naturalist is adhered to as strictly as possible.

Programs have been and still are varied in part because we have been experimenting with different approaches and also because the flexibility allows for the accommodation of a wide variety of groups. The future of the program would seem to indicate that we may begin to specialize and offer a limited number of programs which relate specifically to our objectives for the overall operation of the Centre. The theme areas we would limit programs to are:

1. The interaction between man and the ecology of the northern hardwood forest.

2. Wildlife management practices in managing wild animal populations.

3. The ecology of the northern hardwood forest - what makes it what it is?

4. Outdoor hobbies - birdwatching, photography, etc.

Programs range from 2 - 6 hours in length. The two hour programs tend to be a brief introduction to the ecology of the area, whereas the 6 hour programs specialize in some aspect of the animal or plant life or ecology of the area. Most programs utilize at least some of the indoor and outdoor facilities outlined in the public program.

Since Wye Marsh was the pilot project it has developed a rather experimental approach to the interpretation of the landscape. For the past 3 years we have been using closed-circuit TV to give people candid views of wildlife, especially nesting birds in spring and summer. The results of surveys indicate that this technique is doing what we want it to do - that is get people more interested in what's outside. Research into temperature variations in different soils, water and above and beneath snow and ice is being conducted to see if thermistors planted in the various habitats could send back interesting information on why animals and plants live in certain areas. Some work on 3D displays has been done with a display called "The Web Of Life" which incorporates a sound column into its operation to isolate the message to one area of the display hall. Numerous ideas for new things to try, both indoors and out, keep coming forward. Many will be rejected, but those tested and proven effective will be shared with other centres in the Canadian Wildlife Service chain as well as with other interpretive and outdoor education agencies.

This then, in brief, covers many of the aspects of the Canadian Wildlife Services' role in the outdoor education

of the public about the Canadian landscape.

In conclusion, we recognize that our program fills only one small gap in the totality of outdoor educational needs of Canadians. Many provinces in Canada still struggling to maintain a viable economy consider the areas we are deli erating at this conference to be frills, if not barriers to economic growth. Our optimism for the future must be tempered with some realism on the enormity of the task facing us. Ultimately, it should evolve that outdoor education becomes less of a separate entity and more of an approach to education and life in general, but until that time comes, we must press on to infuse not only formal educational systems, but also society as a whole with the "land ethic".

We don't like to recreate the cave man, but we do want to develop men who, like the cave man, are willing to experience, work with, and understand their environment.

MINISTRY OF NATURAL RESOURCES INVOLVEMENT WITH OUTDOOR EDUCATION

W.H. Charlton.

I appreciate the opportunity to be with you this morning, and I think it is interesting that we are meeting in a natural resources educational facility, the future of which is very much in doubt at the present time. This morning I wish to talk in terms of programs being carried out by the entire Ministry of Natural Resources.

This ministry is a recently formed one and is an amalgamation of all or parts of several departments as a result of government re-organization, earlier this year. Natural resources, as it now exists, is made up of the Conservation Authorities Branch of the Department of the Environment, of the Department of Mines, the Historic Parks Branch from Tourism, and the Department of Lands and Forests. This amalgamation, it is hoped, will lead to efficiencies in both planning and program operations.

The Metro Toronto and Region Conservation Authority was probably the first group in Ontario outside of the education field to become actively involved and concerned in regard to outdoor education. The Authority took the initiative, several years back, to establish the Albion Hills Outdoor Education School, and, at that time, because of the lack of support and commitment to outoor education programs by government, the school was built entirely with private funds. Fortunately, since that time, outdoor education programs have been receiving a greater degree of support from both educators and the government, and a number of programs are going ahead in various fields of interest.

Within Natural Resources the program has been fragmented. The Conservation authorities have established a positive policy of support for education programs and have been working with a number of boards of education to develop programs of common interest. In addition to Albion Hills a second school was built at Claremont. Another, the Black Creek Pioneer Village is of particular interest to school groups. The programs at Albion and Claremont are residential programs and instruction is carried out by authority instructors, rather than class teachers. Many other authorities, in addition to Metro Toronto, have active programs in outdoor education with the Grand, Hamilton and Niagara authorities providing facilities for the use of school

groups. Resource managers have worked with School Boards in virtually every authority area to assist teachers with outdoor education programs.

The Department of Mines has been actively engaged in providing information and teacher training packages which have been oriented to their field of interest and activity. The program has not been oriented to students,but rather to assist prospectors, and to increase public awareness of the role of the earth sciences in the industry and the economy of the Province.

In addition,geologists spend a day each year at Junior Ranger Camps and have participated at a number of teacher training sessions.

The Lands and Forests organization has co-operated with a number of Boards of Education in various areas across the Province. They have made areas available for the use of School Boards and, in some cases, have provided facilities and expertise.

The Technical School here at Dorset has been used as a base of operation for school groups, mostly from the Muskoka Are, since resource technician training became a community college program four years ago.

Much more meaningful programs are possible here, particularly if the University of Toronto Forest were to be combined with the school. Agreement forests have been used extensively by School Groups; but, unfortunately, little information or assistance has been made available to the teachers to aid them with their teachings. An active program is being developed in the National Capital Commission greenbelt forest near Ottawa in conjunction with the Kiwanis Club. Orono Tree Nursery, has provided a classroom for use by school groups, and land areas in the Bracebridge area have been designated for Outdoor educational use. Also lands being acquired on the Niagara escarpment for recreational purposes are being used by educational groups. Help has also been provided to the Atikokan Outer's program through the provision of a field base for their operations. In addition, staff of the Ministry have participated in programs such as the field program for Grade 10 students at Dryden, sponsored by the Dryden Paper Company since 1957, and have worked with the staff of the Macskimming Science School near Ottawa.

Even though there has been considerable activity in the outdoor education field, I feel that the program as it presently exists does not reflect the capability of the

organization. It should be clearly understood that responsibilities in the field of recreation and resource management have been increasing at a tremendous rate and it has been difficult to give outdoor education the priority that it deserves. With the formation of the new Ministry of Natural Resources, it is imperative that the priorities be reviewed and that outdoor education be put in a better perspective.

There seems to be a tendency among people interested in outdoor education to try and define just exactly what it is they are talking about. As with so many broad programs definitions are difficult and varied. My feeling is that perhaps outdoor education is not something that needs to be defined at this time, but rather we should be concentrating our efforts into defining what, in fact, the education package is that we are trying to present to the students and to society. Outdoor education, in my mind, is nothing more than a component part of the overall education program and little is gained by singling it out and dealing with it in isolation. There is a tendency in many people's minds to think that outdoor education is something new and different, when, in fact, we do not have to look very far back into the history books to see that people through the ages were educated in the out-of-doors. We recognize that the most effective forms of education in terms of learning practical skills are those that relate to the real situation and the real world--not those which are gleaned from text books or from the library. The scope of the various fields of knowledge required that society adopt classroom teaching but, unfortunately, this was done to the exclusion of natural teaching experiences. The establishment of public areas and public parks, improved capability in terms of transportation and many other aspects of modern life have put us in a position to take students to various areas, often at quite some distance from their home location, and to expose them to natural and man made features. This was not possible only a few years ago.

The last ten years have been ones of selling,and of growth, as far as outdoor education is concerned. We are all familiar with the problems that were faced by many educators, the concern on the part of school boards, and other agencies, in terms of just what this new boom in outdoor education really meant. Even teachers had to get their feet in the water as there were many teachers who were quite confident in the classroom, but were a little leary about getting out into the out-of-doors. While no one questions the fact that outdoor education is now very real, I think we find ourselves reviewing the last few years activities only to learn that programs are, for the most part, unrelated, unco-ordinated, and very often may not relate to the real objectives of

education. As a taxpayer, and as someone interested in furthering the goals of education, I think the time has arrived when we must back away from what we are doing to-day, put our heads together, and do some sound serious planning. I suggest that the process that we must follow is that which is applicable to all planning exercises. We must first try and establish what our goals and objectives for the programs are. We must then undertake research to obtain information with which to plan. We must evaluate our users. In this case, the users are the students and the general public and we have to be concerned with their distribution, and with their regional needs.

Once it has been determined just what it is that has to be done, various approaches to achieving the objectives should be evaluated, and the most appropriate course decided upon. Resources in the form of facilities, people and money have to be provided and I would suggest that this will require a very real commitment on the part of many agencies, individuals and government - not just the Ministry of Education.

In the case of an outdoor education program, we have to identify the areas and points of interest and of value, as far as the education process is concerned. We have to evaluate the number and capability of the teachers, and other resource oriented instructors that are available, and we also have to be realistic in terms of the capital that is available to carry out the program. This information, once gathered, all has to be analyzed and put through some sort of a meaningful planning process. I think there would be a tremendous value in looking at a group representative of fields of interest and activity on the part of government which could be co-ordinated by the Ministry of Education. It would seem to me that the role of the Ministry of Education should be one of co-ordination and acting as a catalyst, rather than dealing with all of the component parts of the education program themselves. Representation on such a group would be from people involved with the environment,with resource management, with social services, cultural programs, with applied sciences and with the arts. There are probably other areas which should be included as well. Such a step would provide the co-ordination that is presently lacking across the governmental programs, and hopefully, would also provide the stimulus required in ministries to make a commitment to the successful completion of the program.

Thinking in terms of the Ministry of Natural Resources, there has been some question as to the priority that should be given to outdoor education programs. The Ministry is responsible for a large acreage of land within

the province. The Ministry has many areas that are managed intensively for specific programs such as provincial parks, conservation areas, agreement forests, fish hatcheries,and tree nurseries, which could be made available to outdoor education groups if programs were properly organized. The Ministry has many areas that are managed intensively for specific programs such as Provincial Parks, Conservation Areas, Agreement Forests, Fish Hatcheries and Tree Nurseries, which could be made available to outdoor education groups if programs were properly organized. The Ministry also has a tremendous capability in terms of staff with practical and professional educators. The capability of this particular organization in contributing to outdoor education goals is tremendous if priorities were set in line with this objective and a commitment was made in terms of time and money.

There is one point that I feel very strongly about and that is in the area of land available for outdoor education programs. At the moment, school boards with a certain enrolment are able to acquire lands for exclusive use as outdoor education centres. This has caused a real concern with me, as well as many others who are involved with land management programs. I think we recognize the limitations of a particular piece of land in meeting the needs of any school board, and I think we recognize the amount of land that would be required to adequately handle the demands that would be put upon it by students. I think, also, that we recognize that any piece of land has a limited number of features and values and thus students using a particular area are locked into those values to the exclusion of values and programs in other areas. The ramifications of looking across the province at the amount of land that would be required by boards of education to meet their needs for outdoor education programs is rather startling. The Land Resources that are available from not only Natural Resources Ministry, but from other groups--private and public--is, in my opinion, more than sufficient to meet the needs of the outdoor educators.

The Ministry is now taking educational requirements into consideration, and we are making land available,providing information packages regarding that particular area of land and also providing facilities such as classroom and sanitation facilities for educational groups. A policy has to be established in this regard, but I see no alternative to this sort of program going ahead. With a commitment on the part of all land management agencies, I am sure we can come up with an excellent outdoor education base, and one which will be cheaper for the taxpayer and more beneficial to the student.

In summing up, I think we are looking at a program which is exciting, imaginative and dynamic, at the present time: but, I think it is imperative that we stop long enough to evaluate where we are heading and to plan on a meaningful co-ordinated course of action for the years ahead.

THE PROFESSIONAL PREPARATION OF TEACHERS FOR OUTDOOR EDUCATION

C.E. Birchard

I should say at the outset that the "so-called" outdoor education program was very much experimental, in fact it changed each year; it was very unsophisticated in that it did not appear on the calendar but occurred as a regular part of the curriculum, particularly in the science department. Also, I think it is worth noting that during the past year and at present there has been much analysis and examination of the various programs tried during the early years and some consolidation is occurring. For the first time,this year there appear in the calendar, specific courses with course descriptions available for those students interested in the area.

There have been about four recognizable phases in the development of the program at London Teachers' College. I shall briefly describe each with some comments on why we did what we did and why we changed.

Stage I. Characteristics of Stage I were as follows:

(1) A special timetable was arranged for the College for one or two weeks in early May to release students for whole days.

(2) The program was developed and run by members of Science department.

(3) Use was made of rented property about fifteen miles from the College.

(4) A large number and wide variety of resource persons were used. We called on interested local teachers and even some from far away. Audrey Wilson of the conference planning committee always came from Cobourg for at least one day. Help was obtained from local naturalists club, conservation authority and Department of Lands and Forests. We were fortunate in being so close to the University of Western Ontario, and got any support requested from the science faculty there.

(5) During this period students had opportunities to practice teach at Toronto Island Science School,and

Albion Hills Conservation School.

Stage II.

(1) No single site was used. Instead we decentralized and diversified using many areas within the city as well as outside. Most of these were within a 3 mile radius of the College.

(2) We still put all students through the same program.

(3) A special timetable was no longer needed and we found that by students re-arranging their own timetables and sometimes making use of spares and lunch hours we were able to get blocks of time long enough for extended outdoor work.

(4) Because of the diffuse nature of the program we no longer used as many resource people.

(5) Of a course 30 - 40 hours long about 25% was spent in outdoor work.

(6) By this time many other departments were making use of out-of-college experiences in their courses.

(7) For the keenly interested student there were voluntary after-hours activities and a weekend residential workshop.

(8) Practical experiences were still gained at Toronto Island School and Albion Hills Conservation School. We also noticed a marked increase in the use of outdoors by local schools and our students were often asked to assist with outings, particularly during May and June after College had terminated. Also a number of students who could re-arrange timetables to give themselves a half-day a week free of classes voluntarily joined our Teaching Assistants program. In this program students acted as a teaching assistant one-half day a week through out the year, returning to the same classroom each week. We were able to place several students with outdoor programs in this way.

Our reasons for changing the program were as follow

(a) We began to realize that graduates had a strong tendency to bring their classes back to the site on which they themselves had had their fieldwork. As a result the site we used to use is now heavily overused and people are travelling some distance to return like a Canada

Goose returns each year.

(b) We desired greater flexibility and responsiveness which the special field studies week did not provide.

(c) We wanted to integrate outdoor work more closely with the on-going program.

(d) We did notice, however, that when we made these changes and had a program much more educationally defensible,but less spectacular the press, radio and TV stopped coming.

Stage III.

We agreed that we were serving the general student body as well as we could, but needed to do more for the keenly interested. The next phase in our growth was to try to provide more optional short courses and workshops for a smaller number of people. We were also able to greatly increase the opportunities for experience in the field.Every student now spends one day a week in the Teaching Assistants program and last year ten students (screened) were working one day per week with children in the out-of-doors. Also because many classroom teachers have a student teacher returning on a regular basis they are planning their outings on that day to make use of the extra help. Because of the growth of local programs a number of students are placed in full time outdoor programs during their final two weeks of practice teaching. Toronto Island continues to provide a valuable experience.

Stage IV.

Much of the work of the past continues and during 1972-72 for the first time there are two recognized credit courses in outdoor education which appear in the calendar with course descriptions and all.

A brief word is probably appropriate on what was included in our program for beginning teachers. I think our major goals were:

(a) To have people take part in a variety of satisfying experiences in the out-of-doors.

(b) To provide a measure of security by supplying beginning teachers with a few places and a few program ideas with which they could feel comfortable.

(c) To stress transferrable skills. Most students are quite familiar with descriptive, didactic field trips,so

we exaggerated in the direction of quantitative field study techniques which are applicable in many environments.

(d) To make students aware of adjustments which must be made in teaching styles and organizational arrangements, when you move out of the highly controlled atmosphere of the classroom.

Concerns.

I would like to close by identifying some concerns I have in the area of teacher preparation. I think there must be a good deal of discussion on some of these unresolved issues by people in the Teachers'Colleges of Education and those in the field. Let me leave these as questions:

(1) What should be done for all beginning teachers and what should only be done with the keenly interested?

(2) What content and experiences are appropriate for pre-service teacher education and what would better be left for in-service programs?

(3) How do we guard against the apathy and frustration caused by doing too good a job? It seems very easy to bring beginning teachers to a point where they say with conviction"Boy! That's great stuff! That's what I want to teach." or "Wow! That was a great week! How do I get a job in an outdoor program?" Having to face the reality of teaching grade 7 when you're full of a great vision of outdoor education may create this frustration of which I speak. One of the topics for this afternoon seminar is "How do we hook 'em and keep 'em?" I would suggest that "hooking' 'em"is no problem, but tempering the enthusiasm with realistic expectations is a task needing much thought in teacher education, and it must be done or we will face a backlash very soon.

(4) I should not end on a negative note, but must raise a nasty issue which I'm sure other teacher education people have faced too.

In recent years we have had numerous request by schools and school boards to send student teachers along on field trips and field study programs. Often they are amazed and annoyed when we hesitate to pull students out of classes for one day or several days to participate in these valuable practical experiences. Those of you who may have made such a request of a teachers'college must realize that our first obligation is to provide students with the most beneficial experiences we can find which

will prepare them for teaching. If you are genuinely concerned with teacher education, fine, but very often it appears that a school is short handed-- that they need extra help as chaperones, cabin supervisors, etc., and the nearest pool of free labour is the teachers' college. That is a harsh and blunt thing to say, but can be overcome by each party understanding the priorities and needs of the other.

As I said, I shall close on that rather negative note, and look forward to discussing some issue with you in the seminar this afternoon.

PROFESSIONAL PREPARATION IN OUTDOOR EDUCATION

P. Herlihy

A. GENERAL PROVISIONS IN THE UNITED KINGDOM.

Non-graduate teacher training is a three year course usually taken immediately after leaving school at 18 years. I know of only two main courses called Outdoor Education, and these are led by tutors(professors) whose original training and skills are on the physical outdoor pursuits. Approximately eighteen colleges have main course in Environmental Education which invariably includes work based on experiences out-of-doors. The staff of such courses range from architects, sculptors, historians, linguists, and mathematicians to biologists, geographers and physicists.

In addition there are may subsidiary and ancilliary courses which College students can take which cover one or more aspects of outdoor education.

Graduate teacher-training is a one-year course leading to a certificate or diploma. I know only two University Education Departments which provide such a course in outdoor education, taught in both instances by personnel who were outdoor-pursuits specialists. Many departments run short ancilliary courses which are mainly of help in the safety aspects of outdoor education.

In both College of Education and University Education Departments, those studying geology, geography and biology normally have some fieldwork experience (rarely more than one week per year). This is subject-matter field-work, and very seldom includes help in managing a class of children out-of-doors. Instruction in the conservation of areas used for outdoor education may form a small part of the foregoing courses.

For teachers in-service there are many courses provided by Local Education Authorities and by Her Majesty's Inspectorate. Only a very few deal with methodalogy in work out-of-doors.

The above might suggest that the total provision for training in outdoor education is small. There are generally available courses and qualifications of skill and safety in most physical outdoor activities. In addition, about eight years ago the Mountain Leadership Certificate

Board was set up. This Board administers a system consisting of a week's introductory course at a mountain centre,a period of at least a year during which the candidate keeps a log of his outdoor activities including walking with map and compass, and light-weight camping. A final week is held at a centre where knowledge and judgement in safety matters are tested. The Certificate is not a cure-all, but it has made many people more concious of safety in mountains. Of the 170 local Education Authorities, 19 specify that teachers taking groups into upland areas must hold the Mountain Leadership Certificate.

B. THE PART THAT A FIELD STUDIES CENTRE CAN PLAY.

The articles of association of the Field Studies Council limit our concern to "those topics, an essential part of whose subject matter is out-of-doors."

So far, I have made quite a point about safety; obviously a teacher needs to be able to judge whether he is taking a risk and to evaluate it in relation to the importance of the activity in hand.

I have also touched upon educational principles, subject matter and conservation. In practise it is difficult to separate these when designing and carrying out a teacher training programme. I find it easier to look at things another way; but even these headings should not be looked on as compartments into which everything will fit neatly. Neither are they complete in covering outdoor education.

(i) Teaching from the environment.
(ii) Teaching about the environment.
(iii) Teaching for the environment.

Teaching from the environment is the situation where the teacher's prime interest is the children, their feelings about the environment, their reactions to it, and the learning processes which can be stimulated by first hand experience. They are also likely to be concerned with social inte interaction and development. This activity is commonest in the Primary(Elementary)Schools where the teachers are normally more child-centred, less of subject specialists, and not under the shadow of an examination.

I use the term "about" to cover the straight forward subject teaching which uses the real environment instead of secondary sources of information.The standard ecological and geographical fieldwork courses are mainly of this type. A wide variety of methods are used for such teaching. They

range from the didactic system which merely uses the landscape as a visual aid to illustrate a lecture, through various grades of hueistic teaching to a system which, to the student, appears to be open-ended but which is subtly guided by the teachers.

Teaching for the environment is where the teacher's main concern is with conservation, wise use of resources and environmental quality. Conservation can be taught as a subject, but I think it is more effective as a way of life, exemplified to students throughout one's contact with them. And, whilst I know that practical conservation problems and the planning decisions they lead to are among the most com complex problems existing, I also believe it is possible to communicate something of a conservation attitude to children as soon as you can communicate about anything else.

After all this theoretical talk, what happens in practise? Far less than I would wish to see. Most tutors who bring College of Education groups wish to spend the whole of their valuable 6 working days on stretching the students academically. A reasonable expectation, since their students won't be able to teach, unless they know something themselves. However, a few groups are willing to devote some time to field teaching methods and to aspects of safety. We are well able to provide the latter since my deputy was an instructor at the National Mountaineering Centre of C.C.P.R. Field teaching techniques regarding the use of equipment are fundamental but it is difficult to communicate methods of working with children from the environment.

One can try pretending that the group of College students are, themselves young children, and ask them to react as children would to a particular environment. The trouble with this method is that the ones who are most in need of your help are those least able to put themselves in the children's setting.

I often arrange courses so that there is a group of youngsters in the centre at the same time as a College group. This allows two more possibilities. One can work with the youngsters and exemplify what one means by teaching from the environment. This should be ideal, but the large number of observers affects the reactions of the children. One can also allow groups of children and students to work together. The disadvantages there are that the Centre staff cannot keep in contact with the activities of each group, and that the teacher/pupil ratio is unrealistically high. Whatever else happens, at least the students get to know a few pupils rather well in a short time. We have occasionally used groups of local school children for similar "teaching-

practise" and hope to develop this further in the future.

The most satisfactory arrangement is where a College student who has previously visited the Centre, comes a second time to assist us with a course for youngsters. The week-long contact and more realistic staff/pupil ratio is of great benefit to the student. One student who came in our first season (1967) is now Warden of her own centre, and runs teacher's courses for me. The disadvantage here is the small number of student who can have such an experience. We also make a small contribution towards helping practising teachers Apart from the many subject courses which teachers can attend we run a course on "Environmental Studies for Primary School Teahcers" each year. This is partly background subject matter and partly teaching method. We have run course in "Conservation and Environmentl Education" for secondary school teachers. This year this developed into the first "International Course for Teacher Training in Environmental Conservation and Education". The first two-thirds of this course was used to exemplify the "from", "about" and "for" ideas. We then spent considerable time on the conservation problems which arise from the very practise of teaching out-of-doors. The course also spent a day producing a number of recommendations which are being published together with a summary of the course. One of the conservation problems in a crowded island is the conservation of people from being worn out by the constant attention of pupils studying them or their work.

Provision for Professional preparation in Outdoor Education in the United Kingdon is slight, but increasing. Rhyd-y-creuau's contribution is small in number (300 teachers and college students a year) but we are trying to improve our methods. The latest action which I know has long been done elsewhere, is the videotaping and filming of work with youngsters to show what we mean when working with College students.

At present, we are able to use slides of our work with youngsters to promote discussions on teaching methods with trainee teachers.

C. SLIDES TO ILLUSTRATE WORK WITH YOUNGSTERS.

(i) Curiosity is a natural attribute
(ii) Need for freedom before getting settled in an interest.
(iii) Youngsters teach each other and need time to absorb atmosphere.
(iv) The problem of measuring a tree, solved through experiment and discussion.

(v) Open ended investigation of a disused quarry; Safety, discussing importance of success, follow-up.
(vi) Artistic development.
(vii) Conservation may have to be demonstrated.
(viii) Working together.

In closing I would mention the address of the Field Studies Council to be contacted for further information:

FIELD STUDIES COUNCIL(Head Office)
Secretary & Treasurer,
9, Devereux Court,
Strand, London W.C.2, United Kingdom.

This is the address to be contacted if interested in visiting several Centres of the Field Studies Council. General information can be obtained from:

FIELD STUDIES COUNCIL(Information Office)
Preston Montford Hall,
Montford Bridge, Shrewsbury,
Shropshire, England United Kingdom.

My own address is:

Peter Herlihy, The Warden,
Rhyd-y-Creuau,
Betws-y-coed,
Caernarvonshire, Wales, U.K.

PROFESSIONAL PREPARATION IN OUTDOOR EDUCATION
IS IT REALLY NECESSARY?

Donald R. Hammerman

In 1971, Russel Bachert, an NIU outdoor teacher education graduate, completed a survey of degree programs related to Conservation, Ecology, Environmental Education, Environmental Science, Outdoor Education and Natural Resources. One hundred twenty-seven institutions responded indicating they do offer undergraduate or graduate work in these areas.

As one might expect in light of the attention being given to environmental quality these days a number of institutions have newly developed programs related to environmental education, environmental studies, or the environmental sciences. For the purposes of this discussion, however, I have limited my data only to those professional programs identified as relating specifically to outdoor education.

Nineteen institutions offer a B.A. or B.S. degree related to outdoor education. Patterns are: a Major in (1) elementary education, (2) secondary education, (3) recreation (4) physical education, (5) resource management (6) recreation and parks administration, (7) agriculture, (8) conservation and outdoor education with specialization, or emphasis, or concentration in some form of outdoor education.

These variations include: (1) an Emphasis in Outdoor Education and Camping, (2) a Minor in Outdoor Education, (3) an Option in Camping and Outdoor Education, or (4) Concentration in Outdoor Education.

Twenty-one institutions list graduate degree programs related to outdoor education, most at the masters degree level. Again, there are variations on the theme. For example

(1) General Studies and Outdoor Education.
(2) Camping Education with Specialization in Outdoor Education.
(3) Curriculum, with Emphasis in Outdoor Education.
(4) Conservation and Outdoor Education.
(5) Recreation with an Option in Outdoor Education.
(6) Camping and Outdoor Education Administration.
(7) Recreation with Emphasis in Outdoor Education, Conservation or Nature Interpretation.
(8) Interdisciplinary Masters Degree in Outdoor Education.
(9) Recreation and Park Administration with Emphasis in in Outdoor Education.

(10) Natural Resources, Conservation and Outdoor Education, Emphasis in Camping and Outdoor Education.
(11) Outdoor Teacher Education.

Beyond the Masters is a Certificate of Advanced Study with Specialization in school camping, and various doctoral programs. Six institutions reported programs at the doctoral level. These are Ed.D., Ph.D., and Re.D. programs, again with various majors:

(1) Curriculum with Emphasis in Outdoor Education.
(2) Recreation with Option in Outdoor Education.
(3) Physical Education-Recreation with Specialization in Camping, Outdoor Education, and Outdoor Interpretive Services.
(4) Outdoor Education and School Camping.
(5) Camping Education with Specialization in Outdoor Education.
(6) Conservation and Outdoor Education.

Whether or not you go the major, minor, area of emphasis, separate department, or interdisciplinary route, the by far more intriguing question is: Is professional preparation in outdoor education really necessary? Obviously, a number of colleges and universities have already answered this question in the affirmative. The fact that thirty-one institutions throughout Canada and the U.S. do offer undergraduate and graduate programs of one sort or another in outdoor education is a fairly positive response to the question: Is professional preparation necessary?

Does the need for professional preparation in outdoor education actually exist? Ideally it should not, for it should be part and parcel of every teachers professional preparation. In practice, however, the need obviously does exist, otherwise, the number of institutions that have developed areas of concentration, areas of specialization, majors, minors, and so on would not have gone that route. Ideally, professional preparation in outdoor education should be incorporated into all teacher education programs as an integral component of that program. To my way of thinking this would be a higher level of development than establishing it as a separate area of specialization. I realize that at this point my remarks must sound rather heretical, especially coming from someone who is professionally engaged in outdoor education at the higher education level.

To lend some direction to our consideration of the philosophical question: Is professional preparation in outdoor education really necessary? I would like to pose the following additional questions:

(1) Does today's teacher require specialized skills to carry on the instructional program outside the schools?

(2) Is the process of learning outside the classroom significantly different from that of learning in the classroom? Is the stimulus different?

(3) Are the modes of acquiring knowledge or of inquiry different?

(4) Is the learner any different outside of school than when in school?

(5) Is the role of classroom teacher as a facilitator of learning any different outside the classroom?

Obviously, these questions are interrelated, and while for the purpose of this discussion we may consider some of them separately, in theory each of the points discussed must fit together into a total conceptualization of professional preparation. So, let us consider these questions, not necessarily in the same order, keeping in mind that while we treat them separately they are all connected and part of a larger whole...which is the point we ponder: Is professional preparation in outdoor education necessary?

The first question: Is the process of learning outside the classroom substantially different from that of learning in th e classroom? Why should it be? In fact why should we ever separate the processes of learning according to where it is occurring?

I suspect that strategies for learning such as problem solving, the discovery approach, exploratory learning and the like can be applied just as effectively in the classroom as beyond it.

I believe it is just as great a challenge to motivate learners indoors as out-of-doors. A teacher should be able to exercise every bit of imagination, and skill and creativity that he possesses to motivate his students and to facilitate their learning no matter where he is teaching...in the classroom, or elsewhere.

My answer to the question: Does today's teacher require specialized skills to carry on the instructional program outside the classroom would be a heretical "No". They should not beperceived as specialized skills in the first place, but as skills that every competent educator should possess.

The second question: Is the stimulus different? Ideally it should not be. In practice it would appear to be. Classroom stimuli typically consist of the written or spoken word, charts, pictures (moving and still-- each one worth a thousand words we are told), diagrams on the chalkboard, plus the interplay that, if allowed, can take place between minds.

Out-of-classroom stimuli typically consist of things manmade and natural, growing and non-growing, natural processes--static and dynamic. Out-of-classroom stimuli fortunately seem to lend themselves more to the processes of inquiry, firsthand observation, exploration and discovery, problem solving and synthesis.

This sort of comparison may well be an indictment of the relatively stifling learning atmosphere which typifies much of what comprises "school" these days when contrasted with much of what typifies out-of-classroom studies. The "open school" or "free school" movement has coined a phrase, "the trouble with schools is schools." Yet to the credit of the schools and school people is the fact that they are searching for alternatives. It seems to me that what we have come to call outdoor education emerged on the school scene partially in response to a search for viable alternatives in education.

The third question: Is the learner any different outside of school than when in school? Unfortunately, he often seems to be markedly different. Observe youngsters when they are let out of school. They hop, skip, trip lightly and literally jump with unbounded joy. Now obviously a good deal of the unbounded-joy-manifestation may be the natural physical reaction to being able to stretch and move with relative freedom after having been confined to ones' desk for a period of time. A hopeful sign is the recent development of the open school concept in the form of learning resource centers within a building which does allow children to move about more or less freely while they study.

Nonetheless, the learner outside of school does appear to be more self-directed...more inclined to pursue a problem or a project with a bit more zeal than he directs to his classroom studies. Could it be that what exists outside of school is inherently more interesting to investigate than what exists in the classroom? What exists in the classroom that is worthy of study?

What exists in the classroom is more often than not, second-hand sources of information to be tapped by the not-so-eager learner. What exists outside the classroom is most often

the stuff of the "real world," whatever that is. In-school subject matter does appear to suffer by comparison when balanced against that which can be investigated outside the school.

The fourth question: Is the role of teacher as facilitator of learning any different outside the classroom? Should it be? Of course not. The teacher as a facilitator of learning should be able to function effectively in any number of different learning environments whether they are inside the school building or in the larger classroom of the community, and beyond. This thought is related to the concept of extending education into many facets of community life, and into a variety of instructional settings.

Paradoxically, however, today's teacher is prepared primarily to function in a school building. Notwithstanding the fact that today we are living in, and youngsters are learning in an expanded and ever expanding world. Children of yesteryear learned in a relatively circumscribed learning space. Today's learner, by comparison, through the advantage of advances in various media, can visually travel the world and the solar system. We are today much more citizens of the world.

Today's professional preparation, therefore, should include subject matter and strategies that will enable educators to draw upon instructional resources that exist in the world beyond the classroom. And I am not speaking now of preparing teaching specialists in something called outdoor education, but of preparing every teacher to be the universal educator so that he is capable of carrying on the learning process in any number of learning environments: in school, standing in front of the chalkboard; out-of-school, standing on a street corner in mid-town Toronto... or exploring a dried up creek bed; observing in a city park; standing in a darkened spot at night, and finding ones way among the constellations; following tracks of an animal across a snowy field to its burrow; tuning into the music of the spheres beside a gurgling brook; in a word, functioning as a teacher in the world,rather than isolated from the world. This I believe is the crucial mission of professional education today, and to bring it about may well call for a change in the mind-set of what traditionally comprises professional preparation. But that's the name of the game--change. This means that institutions of higher learning need to be expanding their walls to include all kinds of out-of-classroom studies as an integral part of professional education.

Let me close with a quote from St. Bernard de Clairvaux, "Believe one who knows, you will find something

greater in woods than in books. Trees and stones will teach you that which you can never learn from masters."

As professional educators we have become too bookish and have lost contact with the substance of what is real. It is this contact with firsthand experience that we need to re-establish as an essential component of learning at all levels.

NATURAL RESOURCES TECHNOLOGY.

J. David Bates

(a) Objectives.

The Natural Resources Technology course should not be seen as primarily a training course for technicians in forestry and mining. The course can be very interesting and informative for a wide variety of students and, particularly in this time of high environmental concern, an important experience for them.

During the course a student can be exposed to many of the resource-related job opportunities, and may learn related knowledge and skills but this should not be confused with training for the job.

Major Objectives could include the following:

(1) To know better the plants, animals, rocks, weather, and other natural phenomena through field and class studies, and to understand in part the complex interrelationships between living things and their environment.

(2) To gain knowledge about the natural resources of the region and their importance to the region, to Ontario, and to Canada.

(3) To consider carefully various aspects of the natural resources so that students may be better informed on the issues of conservation, resource extraction, environmental quality, resource-dependent economies, and resources management.

(4) To learn and practice techniques and skills related to studies of the natural resources so that the students become more competent in performing them, and so that they are introduced to a variety of potential job and career orientations.

(5) To have students know, enjoy, and cherish natural environment away from human communities through regular excursions to experience its many aspects.

(6) To use relatively informal learning situations to promote social interaction among students, teachers,

and people in the community.

(7) To enable students to meet people and experience work associated with resources utilization, resource management, and resource-related occupations, so that they may have reference points when making decisions about careers, jobs and life styles.

(b) Content.

The five areas of study listed below are essential. In any of the areas more studies could be undertaken. The breadth and depth of study depends on a number of factors, number of years for the course, timetable and transportation, student and teacher knowledge and abilities, facilities, locale, etc.

No particular sequence is implied, but the student should be quite aware of the basic plan and the relationship of his studies to it. I think it would be unwise to completely ignore any of the areas of study. Similarly, a study of natural resources should not be limited to forestry and mining.

(i) Basic Studies.

- trees, fur-bearing animals, insects, fish, pond-life, stream life, basic biology, etc.

- rocks, minerals, soils, basic geology and physiography, etc.

- climate, microclimate, basic meteorology, etc.

- mapping and surveying.

(ii) Ecological Studies.

- habitats, niches, communities, succession, etc.

- basic interrelationships between climate, soil, and living things.

- air and water as life-support media.

- nutrient cycles.

(iii) Natural Resources Studies.

(1) Forestry

- tree characteristics, properties of woods, utilization of various species, etc.

- renewable resource, growth, regeneration, silviculture, etc.

- utilization, extraction practises, management, etc.

- limitations on extraction and utilization.

(2) Mining

- mineral and ore characteristics, utilization of various minerals, etc.

- non-renewable resource, consequences

- prospecting, mapping and detection, utilization, extraction practises, management, etc.

- limitations on extraction and utilization.

(3) Fisheries

- species, commercial and recreational, utilization of various species, etc.

- renewable resource, life-histories, culture, etc.

- utilization, extraction practises, management,etc.

- limitations on extraction and utilization.

(4) Wildlife

- species, commercial and recreational,utilization of various species, etc..

- renewable resource, life-histories, migrations, etc.

- utilization, extraction practises, management,etc.

- limitations on extraction and utilization.

(5) Water

- value to living things, one of Canada's great resources, etc.

- renewable resource, hydrologic cycle, maintaining

supply, degredation of quality, etc.

- utilization, extraction practises, management, importance of not destroying it, etc.
- utilization, extraction practises, management, importance of not destroying it, etc.
- limitations on extraction and utilization.

(6) Soil, Sand and Gravel

- sources, kinds, qualities, utilization of various kinds, etc.
- non-renewable resource, consequences
- utilization, extraction practises, management,etc.
- limitations on extraction and utilization.

(7) Air

- characteristics, various ways it is used.
- renewable resource, cycles involving air, degradation of quality, etc.
- utilization, management, importance of not destroying it, etc.
- limitations on extraction and utilization.

(8) Other Canadian Natural Resources

- gas, oil, petroleum products
- plants and animals of the seas
- the oceans

(iv) Resources-related Economy

- recreation
- travel and tourism
- secondary and tertiary industries, businesses, and services.

(v) Management of the Natural Resources

- renewable and non-renewable resources, limits of both
- factors that have to be considered
- past practises, present practises, present concerns etc.
- trends both good and bad
- the merits of playing it very safe

In any of these areas of study, the student may be asked to know, comprehend, apply, analyze, synthesize, or evaluate some item or aspect.

(c) Processes, Skills, and Techniques.

The previous section may make Natural Resources Technology sound very academic and esoteric but not technically oriented. Such is not intended. Rather,a merit of the course is in the great potential for melding the technical and the academic, if indeed they should ever be separated.

The balance between practical and non-practical can cover a very broad range but one might consider that two-thirds to three-quarters of the work should be practically-oriented.

Basic processes which can be worked into the course include:observing, classifying, measuring, communicating, inferring, predicting, using space-time relationships, using number relationships, formulating relationships, controlling and manipulating variables, experimentation, interpreting data and formulating models.

The skills and techniques involved in the following activities can quite readily form part of what the student learns in Natural Resources Technology: photography, mapping, surveying, physical and chemical analyses, maintenance and use of tools, surveys of plant and animal life, statistical methods in forest surveys, bush travel, lake surveys, weather studies, report-writing, construction of equipment, and basic laboratory and shop activities.

(d) Attitudes, Values and Perspectives.

It is inevitable the students learn attitudes and values from teachers. Good, bad, or indifferent; intentional or unintentional; they are learned. The Natural Resources Technology teacher might consider the merit of helping students to learn the following:

- the value of a fact, and the difference between facts, conclusions, and opinions.
- the appreciation and enjoyment of the natural world relatively undisturbed by humans.
- the value of accuracy, precision, and thoroughness in their work.
- an attitude of tolerance for the work and personalities of others
- student-teacher camaraderie and mutual respect
- the value of questioning what others say and do of being skeptical.
- the value of a broad point of view on the management of natural resources; wide perspective; to see the forest despite the trees.
- an attitude of commitment to goals
- to exchange ideas freely and vigorously
- an attitude of protection and conservation of the quality and quantity of the natural resources
- an appreciation of the natural world of which man is a part and the limitations it places upon him.

Value judgements are among the most important decisions people have to make. Natural Resources Technology provides many opportunities for the teacher who has courage to care to help his students refine their attitudes, values, perspectives, and the judgements based upon them.

(e) Field Studies

Without field studies there is no Natural Resources Technology worthy of the name. Many of the important and interesting components of the course are associated with a wide

variety of field studies.

Most learning in the course needs to be through direct experience in the field. Simulations indoors, lectures, and films are inadequate substitutes for the real thing, and in addition are likely to be of little value to the students who could benefit most.

It is this emphasis which makes Natural Resources Technology interesting, unique and valuable.

The course must be organized to facilitate field work, and students and teachers must be prepared to work outside in a wide variety of conditions.

Field trips are time-consuming. They also provide management problems. Students should work alone and in small groups, often some considerable distance from the teacher. Some situations are potentially hazardous, and accidents will happen.

Safety practises are most important and must be promoted and enforced. Potential accidents must be anticipated anf first-aid procedures prepared.

(f) Teaching Personnel

It is quite possible that individual teachers with reasonable teaching experience, broad academic and work experience, and an interested and informed view of resources management can quite successfully teach a Natural Resources Technology course. More commonly, though, the expertise of two or possibly three teachers will be used.

Since my view is that the major objective of the course is to aid the students to view the natural environment as a complex, interrelated, dynamic living system, it follows that the Natural Resources Technology teacher, particularly if there is just one, must be oriented towards this broad perspective.

An ecology oriented background should provide the soundest base for teaching the course, though in itself is not necessarily sufficient. Forestry, fisheries, wildlife, and mining are the major resource studies. The individual teacher should be competent in at least two of these and informed on the others. Two or three teachers working co-operatively can be more specialized but nevertheless comprehensive in their view of resources. All Natural Resources Technology teachers must be competent field leaders.

Teachers may teach co-operatively in several ways; e.g., as a team teaching together, teaching different sets of periods in a timetable, teaching different semesters, or teaching different years.

(g) Students

Natural Resources Technology can be interesting and valuable for both boys and girls. Similarly, a reasonable range of intelligence can be accommodated, but a very wide range is necessarily difficult to manage, probably educationally disadvantageous, and probably unsafe.

The informal socializing potential of the course can be a very important factor in assisting students who are less interested and less successful in other school situations indeed these may be some of the most rewarding teaching experiences.

Class size must take into account the expeditionary nature of the course, the dispersion of students in the bush, and on water, the difficulty and undesirability of regular close supervision, and the teacher's limited means of obtaining assistance. At senior levels twelve students are probably supervised satisfactorily and twenty are probably not. At intermediate levels if the expeditions are less difficult and not far-ranging, class size may be satisfactory at the upper limit.

(h) Timetable

Natural Resources Technology requires relatively long blocks of time for field studies and for practical class room work. Details may vary, but it is essential that half-day classes are regularly scheduled. The fullest potential of the course cannot be realized unless full-day classes are scheduled or readily arranged.

I believe strongly that a suitable timetable is one of the most important factors in a successful course.

(i) Transportation

Suitable transportation is, like a suitable timetable, one of the most important factors in a successful course. Suitable transportation means:

- available on demand when required for as long as required

- primarily or exclusively for Natural Resources Technology

- the teacher is a licensed school bus driver

- safe and adequate.

(j) Equipment and Facilities

1. Shop - The essential features here are:

(i) sufficient floor area for working on boats and canoes, for drying nets, initial surveying exercises and similar space-demanding operations;

(ii) specialized work areas for such uses as: maintenance of hand and power tools and equipment, photography, drafting, classroom-type activities biological, geological and chemical laboratory type work, etc.

(iii) plenty of open and closed storage area;

(iv) a large shop-type exterior door;

(v) flexible-use space by means of movable work benches many electrical and water services, few walls and partitions, perimeter arrangement of fixed facilities, etc;

(vi) wash-up and equipment cleaning facilities(concrete floor, floor draining, etc.);

(vii) easy access to outside;

(viii) greenhouse (perhaps not indispensible, and,

(ix) meterological station.

2. Field Station and Field Study Areas

A wide variety of study areas are needed within short commuting distance of the shop. Rock outcrops, ponds, streams, lakes, forests, swamp, and bog are all essential to a widely-based course. Presumably one of the reasons for establishing a Natural Resources Technology course is the regional significance of natural resources, and the emphasis of the course will be upon regionally significant resources.

Sufficient quantity and variety of study areas are

needed to ensure that no area becomes oyer-used and degraded. This is most important.

A large field study area away from the shop and reserved for educational, mostly Natural Resources Technology use is highly desirable. It can be used during the half and or full day sessions.

However, even when very close to the shop, by the time preparation and travel to and from the site are considered there is little field study time left in half a day. Full day sessions are highly desirable.

The Ministry of Natural Resources can designate one square mile (640 acres) as a Wilderness Area for educational use. Carefully selected, such an area can be a valuable facility. A field station near a Wilderness Area or near some other common study area should also be seriously considered.

The nature of the course and interests of the instructors will be significant factors in determining equipment needs for the course.

Pontoon-platform boats make good safe work-boats, large utility boats are good, and canoes are questionable.

A large snowmobile is a definite asset in winter transport and work. A good variety and quantity of reference books is essential. These must be available for use in the shop and in the field.

Much of the work in Natural Resources Technology will be basic and a lot of specialized expensive equipment is not essential. Rather, the emphasis should be on adequate quantities of a wide variety of basic equipment, on reference books, and on transportation.

(k) Variations

Natural Resources Technology is commonly considered one course with one timetable arrangement for a year or several years. Other arrangements are possible.

Where two teachers have differing specialities, one year of Natural Resources Technology may have a biology-fisheries-forestry emphasis and another year a mapping-surveying-geology-mining emphasis, or have some other division of emphases.

A school organized on semesters could organize the

course into even more discrete units. In this case Natural Resources Technology might be a set of courses. A possibility in semester organization is to have different timetables for different courses. Where long field studies are prominent the longer periods up to one day are scheduled. Where they are not prominent the timetable would not have long periods.

It is also possible, when Natural Resources Technology is divided into discrete shorter courses, to allow students to select certain courses without taking all of them.

Natural Resources Technology is one course that I feel could benefit if schools were organized on a year-round basis. A summer semester would be an ideal time for field studies.

Something valuable might be lost if Natural Resources Technology was subdivided too much, particularly if each subdivision was optional. Continuity, comprehensiveness esprit, broad perspectives, and a variety of experiences is important. I believe that these would be more likely characteristic of longer courses with one or two teachers than of shorter courses with several teachers.

The main point here is that Natural Resources Technology is evolving in a state of flux. It is new and susceptible to efforts to suit it to local circumstances. Hopefully, its good features will be made better and its poor features minimized.

CONSUMER-OUTDOOR EDUCATION

Alan Longshore

A consumer-homemaking project has been approved for use in the Alton University Farnsworth Middle School by the Home Economics Department, with sixth graders. It is a federal grant awarded by the Bureau of Home Economics in the Division of Occupational Education Supervision of the New York State Education Department. The emphasis of the project is consumer education in home economics using outdoor education as a technique to teach these consumer skills.

About 120 sixth graders are taking the elective programme with four weeks of team planned classroom instruction preparing for the outdoor education experience at the conclusion of the first phase. Field trips to department stories and local supermarkets will focus on the equipment, clothing, shelter and food for a camping experience. Resource people from state agencies, Red Cross, Albany County Extension Service and other people will contribute to the programme. Special assistance has been given by Guilderland Chamber of Commerce in the programme development. Basic skills of reading, writing and mathematical computation were employed in lesson planning. One highlight is an Outdoor Education Show which features the camping gear of faculty members. This phase of the elective has used many faculty members to act as resource people.

The second phase is the three-day resident outdoor education experience at Camp Medusa in Medusa, New York. There will be two sessions with sixty students and six teachers at each experience. The goals are (1) using the outdoors as a learning laboratory to utilize and reinforce skills and attitudes developed in the classroom, (2) organizing and implementing pupil-teacher planned experiences based upon sound learning approaches to critical thinking and problem solving, (3) understanding the natural environment and man's relation to it, (4) developing outdoor living skill knowledge and attitudes for the worthy use of leisure, (5) developing the powers of observation as a means of learning through the involvement of all the senses, and (6) understanding and practicing social living for the resident outdoor education experience.

To achieve these goals two interdepartmental teacher teams have been formed to develop a comprehensive

educational programme adapted to an outdoor classroom situation. The curriculum will include creative writing, log keeping, field mathematics (area and distance), map making, social studies field trips, art in nature, health and physical education. Areas in science covered include astronomy, pond and stream ecology, soil conservation, forest management, weather, insect collections, geology and nutrition. Many other activities are included in a programme that will receive daily evaluation by students and teachers. This second phase will also give students an opportunity to apply the consumer skills learned in the classroom phase of the elective. Resource people will act as consultants at the camp, in relation to their specialties.

The entire project is being documented for sharing with other school districts. The State Education Department has commissioned the Middle School Home Economics Department to develop Project Manual for statewide distribution. It will be available by September of 1972.

TEACHING A BEGINNING ARCHER TO SHOOT

Kit Koehler

Objective

To get the beginner shooting with some degree of accuracy.

Preparation

All equipment ready for use: Target butts set up with faces pinned on; bows strung with a sight of some type attached; arrows ready to be assigned by length; shooting line laid out 10 yards from targets.

Preliminaries

If group is large (more students than the number of bows and shooting positions) establish partners of similar arm length - each person should have an armguard and finger tab; assign a bow and arrows to each pair; one item each to carry to shooting line; place bows and arrows behind the shooting line.

Steps to Shooting (for a right-handed shooter)

(1) Stance - straddle the shooting line, feet parallel left side toward the target, head turned to face the target, but shoulders still over the feet.

(2) Raise left arm (bow arm) to shoulder level, turn elbow out so that when the arm is bent it comes into the chest (not up to the head) - left hand should be in the handshake position.

(3) Take anchor position with right hand -- index finger securely under the chin, hand against neck, right elbow at shoulder level.

(4) Illustrate that only the three fingers are used to pull the string. With right hand in anchor position, hook on the three fingers of the left hand and pull with back muscles to get the concept of the release action.

(5) Raise the bow arm and pretend there is a bow in it. Hook the 3 fingers of the anchor hand on the

imagined string and pull it back to anchor position.

(6) Hold an arrow between the first and second fingers, the hand in the palm up position, the arrow hanging down, the odd coloured feather(cock feather)parallel to the fingers and towards the tips of the fingers.

(7) Raise the bow arm and with the right arm extended place the arrow in the V formed by the thumb and first finger of the bow hand. Draw the arrow back to the anchor position.

(8) Replace the arrow and pick up a bow(partner steps behind the line and observes). Raise the bow arm and place the bow in the bow hand. Hook the three fingers of the anchor hand on the string, pull back about 1" (N.B. : 1" - 2" only, any further could be dangerous without an arrow!!)and let the string roll off the fingers(release action).

(9) To use the site,close the left eye and hold the bow so that the end of the pin is in the centre of the gold.

(10) Instructor illustrate the nocking position, then go behind the line as students nock their arrows.

(11) Raise the bow arm with the right arm extended to hold the string and arrow in nocked position. Draw the string back to anchor position. Try this several times until the instructor gives individual instruction to release. The full draw position is with the index finger under the chin and the string touching the centre of the chin and the centre of the nose.

Procedure for Practice

(1) After individually releasing the first arrow, shoot the rest of the arrows.

(2) If students have trouble with the arrow not staying on the arrow rest during draw, illustrate the fault of grasping the string instead of merely hooking the fingers on it.

(3) Illustrate proper procedure for collecting arrows.

(4) Repeat from step #8 with other pair of the partners.

(5) Before shooting second end, introduce the follow-through steps.

(6) If arrow lands consistently off target, adjust sight accordingly.

WHY THE EXCITEMENT ABOUT ENVIRONMENTAL EDUCATION?

Dr. William Hammerman

The lead story in a Chicago newspaper last year stated that, "Eleven area companies were charged by the federal government with polluting rivers and waterways." This action was announced by the United States Attorney General who also authorized the initiation of the first federal grand jury to investigate water pollution in this area.

The legislature of a western state recently passed a law that requires that adopted courses of study shall provide for instruction in "protection and conservation of resources" and "man's relationships to his human and natural environment," in appropriate grade levels and subject areas, grades one through twelve. Additional legislation established a Conservation Education Service in the Department of Education to encourage and assist school districts in developing and maintaining conservation education programmes.

A Conservation Education Advisory Committee recommended in its report to a State Board of Education that preservice teacher training must include as a minimum, "one three unit course in the philosophy, politics, economics, sociology, and ecological aspects of conservation...such a course to be a requirement for graduation."

Local citizen groups have been formed to correct blighted neighbourhood areas, campaign for more open spaces, and to petition for stricter pollution control laws. Student organizations have conducted ecological "teach-ins" and dramatized the problems of pollution by burying an automobile.

Reports of this nature are everday occurrences across the United States of American whereas ten years ago such new items were seldom heard. Along with these developments has come a flood of articles in the popular magazines dealing with the quality of our environment. Two years ago a new professional journal appeared that is devoted to discovery and dissemination in the emerging field of multidisciplinary conservation communications...Environmental Education.

The aim of most environmental education programmes is to produce a citizenry that is knowledgeable concerning our biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to

work toward their solution.

Many people, including educators, ask themselves, "Why all this excitement about environmental education?" Some answer by stating it is simply a matter of survival. More and more people now see and sense what some scientists and environmental experts have been reporting and predicting for years:

(a) Poorer quality air space as evidenced by smog.
(b) Lower quality land and water areas due to various types of pollution and poor use and management policies.
(c) Alienation of people living in the larger metropolitan areas that results in degenerating human relations.

In brief, an overall threat to the quality of man's way of life and his relationship to his planet is certain unless he modifies his life style and behaviour patterns.

Combined with the survival factor has been a cumulative effect of earlier events that has caused people in the Americas to value their natural resources and to be concerned about the quality of their environment. Roderick Nash *(1)* traces the history of conservation in North America in a book of readings with a selection as early as 1832. During the Progressive period of the twentieth century, the first major thrust of the American Conservation movement occurred. Some of the same factors as to-day, a growing population, urbanization and industrialization, created a ripeness for Americans to be concerned about their environment. Scores of articles, pamphlets and books that treated resource management were published. This was the period of a White House Conference on Conservation, the National Conservation Commission, and the North American Conservation Conference. The names of men such as Gifford Pinchot, Jay N. Darling, Robert Johnson and John Muir were well known for their efforts to communicate this growing concern to the public.

During the 1930's and 40's the writings of Aldo Leopold, Hugh Bennett and Robert Marshall plus events like the establishment of the United States Soil Conservation Service, the Tennessee Valley Authority and the Civilian Conservation Corps help create an ethic for man-land relations and a readiness for Americans to be concerned about their environment. The dominant theme of the quality of mans environment has been nurtured to new heights by Rachel Carson's "Silent Spring (1962), Stewart Udall's "The Quiet Crisis (1963) and Paul Ehrlich's "The Population Bomb (1968).

Coupled with the message found in Fairfield Osborn's "Our Plundered Earth"(1948) and "The Limits of the Earth"(1953), modern man finds himself an endangered species on a "Spaceship"that must find both a means of survival and a style of living compatible with the optimum development of both himself and his environment.

A major issue of the 1970's politically, socially, economically, and biologically, is the environment. Only recently, the President of the United States created a Council on Environment Quality to study this problem area and provide guidance. However, regardless of the number of special commissions, legislative controls and appropriations of emergency funds regarding various environmental concerns, an informed and educated citizenry will be needed if any long enduring changes are to take place.

Our educational endeavours, at all levels,must incorporate the "Direct Experience Approach to Learning" when appropriate and thereby provide a "DEAL" for the learner as he internalizes the ABC's of environmental behaviour.

Awareness Behaviour leads to Concern;
Acquisition of knowledge Behaviour leads to Committment;
Action Behaviour results in Change.

Julian Bond(2) Georgia State Legislator, recently warned higher education administrators that"revolution on American campuses will not end until universities become centers for the study "of how to make man behave better". He also said, "The pollution of the air and water is not carried out by fools or idiots but men educated at the best scientific and technical centers...The ability to shape a society that spends nearly one hundred billions of dollars on conquering space and dominating the globe militarily comes from men of genius, not from men whose minds are limited. Instead of solving his problem, educated man in America has instead poisoned the air and water,raped the land, and colonized whole races of people both here and abroad.

As man enters the latter portion of the twentieth century, he stands at a fork in his environmental road to a quality life for the future. Are the schools and other educational-oriented groups ready to prepare to-day's first grader (age 6 in 1970) for his post-collegiate world(age21 in 1965) or for the turn of the centry(age 30 in 3000)? If we are to succeed in man's quest for survival and a quality environment, educators must make their contribution by designing:

(a) A basic conceptual framework for environmental education that will be relevant in both the 1970's and the year 2000.

(b) A K through 12 sequence of experiences that causes the student to become aware and committed to take appropriate action in order to maintain a quality environment.

(1) A complementary series of direct learning experiences in various outdoor laboratories that range from the school yard and nearby park to national parks, forests, and wilderness areas.

The schools of tomorrow must impart more than a body of skills and knowledge. There is a growing appreciation that it is not good enough to give people tools without defining the context in which they will be used. Let it not be recorded in the annals of future historians that man failed to recognize the one true "non-negotiable' demand... the ecological parameters of his environment.

(1) *Nash, Roderick, The American Environment: Readings in the History of Conservation, Addison-Wesley Publishing Co., Menlo Park, California, 1968.*

(2) *Moskowitz, Ron, "Julian Bond Views on Campus Strife," The Chronicle, San Francisco, California, October 11, 1969.*

THE ROLE OF ENVIRONMENTAL ORGANIZATIONS IN OUTDOOR EDUCATION

J.D. Coats

Environmental Organizations

These are of many types and serve a variety of objectives. There are differences in financial structures, staffs, programs and appeal to supporters.

We tend to think of the aggressive, so-called "activist" groups as the "environmental organizations" today, but there have been similar organizations for many,many years. Our own Association can look upon 72 years of activity in this field. Tactics change, of course, and many of the newer groups operate differently than we do. We concentrate heavily on promotion of activity by others. We like publicity but we do not seek it at any price. I suppose you could say we are a middle of the road organization when it comes to controversy. We do not encourage the polarization of views- rather we seek to enlighten all facets with the facts.

About the O.F.A.

We could spend some time discussing the roles of environmental organizations in theoretical terms but I propose to tell you about the role of only one organization today and that is the one by which I am employed - the Ontario Forestry Association.

Our stated purpose is to promote sound land use and the full development, protection and utilization of Ontario's forest resources for maximum public advantage. This includes a wide variety of possibilities from reforestation to wilderness, logging to government policy.

We see outdoor education as a vehicle for promoting our objectives and while some will view us suspiciously and charge us with ulterior motives, we feel that our purpose is important and do not apologize for it. All education serves an ulterior motive for someone and we are not bashful about ours.

I don't want to bore you with details about the Association, but you may understand us better if I mention a few main points.

(1) We are non-profit, non-political, charitable, will accept funds from anyone.

(2) Our staff is small - four full-time, many parttime but unpaid.

(3) We run several programmes:

(a) Forest Fire Prevention
(b) Development of information materials
(c) Preparation of briefs
(d) University courses
(e) Interviews, press releases, exhibits, parades.
(f) Ontario FORESTS - a quarterly magazine
(g) Resources Rangers - youth programme
(h) Boy Scout - Girl Guide programmes
(i) Teachers workshops
(j) School projects - tree planting,lectures
(k) O.T.F. Outdoor Education Handbook
(l) Dryden High School Conservation Camp
(m) Forest Resources Study Centre - Bracebridge

We are very interested in assisting programmes in any way we can. We see outdoor education as a good vehicle for promoting what we want in resources management.

This is where our role is different than most other roles in this field.

Several are involved in outdoor education in, for and by the outdoors. Our concern is for the quality of resources management and the need to encourage the public to adopt resource management programmes with some high degree of priority. We, therefore, attempt to capitalize on outdoor education in, for and by the outdoors in leading people to consider the issues we feel are important.

We are as interested in indoor education as outdoor education, but recognize, and have recognized for many years, the opportunities that exist in the outdoors for educational activity to meet our needs.

At present we are particularly interested in improving communications in field situations to reach masses of people in the outdoors simply and effectively.

ENVIRONMENTAL LEARNING AND THE NATIONAL FORESTS

Nolan O'Neal

Smokey Bear says: "Only you can prevent forest fires"....Woodsy Owl says: "Give a Hoot....Don't Pollute".

They say this and a few more things to millions of people through mass media of T.V., radio, poster, bumper stickers and sweat shirts.

This is obviously a simplistic broad brush effort to change peoples behaviour, or at least influence them not to set the woods afire.

From this approach to a new sophisticated, co-operative environmental education programme working through teachers and administrators in the State school systems, is an enormous jump. And there is a great profusion of efforts in between; for it has become urgent to reach, in some way, the 160 million people who visit National Forests by jet, foot, car, snowmobile, cycle, horse and helicopter, each year.

It is necessary to inject here a quick look at the National Forests of the United States and The Forest Service charged by Congress to protect, develop and manage them.

The National Forest System includes 154 forests covering 187,000,000 acres with areas in most states. Geographically they range from Florida and Puerto Rico to Alaska to the South West, etc. The great climatic and elevational differences give them an enormous variety of fauna and flora and a treasure of history, archeology, geology and wonderful scenery. They differ from National Parks primarily in uses permitted, such as timber harvesting in designated areas, livestock grazing and greater variety of special activities.

The Forest Service is a highly decentralized, but very close knit organization..traditionally resource-oriented ..but in recent years becoming geared to people. This is best indicated by the rich mix of disciplines; sociologists, lawyers, educators, landscape architects, chemists, artists, writers, etc. in an organization formerly dominated by Foresters and Engineers.

But back to the subject of what the Forest Service is trying to do toward helping some environmental learning

take place among the millions, mostly urban centered people who use the forests directly or depend on them for water, forest products, and other key needs.

I prefer to approach this with very brief descriptions of a few programmes, some very new, that are having or promise some success.

Smokey Bear--Woodsy Owl

Smokey has been preventing Forest Fires for 25 years. He is the symbol of a co-operative programme involving an advertising council, the States and the Forest Service. He has a law that protects him and permits retention of royalties from the sale of products. Last year his income was $220,000.00 all of which goes into the programme. He has his own Zip Code and receives an average of 200 letters a day at his Washington, D.C. headquarters.

We think he has reduced man-caused forest fires, and made people more conscious of the values in forests subject to protection from burning.

Woodsy is a very new symbol who's concerns are with pollution--air, water, noise, or visual. He tells people positive, practical things they can do to improve the world around them. He will soon issue a protective law, and we hope he will develop a following like Smokey, and make a pile of money to support his activities.

Simplistic messages, symbols and mass media exposure are surely not answers to the need for environmental literacy. But they do produce environmental awareness, they play a needed role.

The Visitor Information Services.

You are all familiar with visitor centers, signs, overlooks, historic points and publicized outdoor wonders, (some publicized until they become trampled wonders). Like everyone managing public lands, we have tried in many ways to ease in more soft sell education. And we are designing facilities to be useful to educators, hobbyists and organized youth or adult groups. Hopefully the stale displays and glass caged memorabilia will give way to the real world where you can touch, smell, taste, listen and wonder a bit more. We welcome suggestions and gleefully steal ideas that will contribute to understanding of the out of doors.

Co-operative Outdoor Environmental Programmes (COEP)

This is our newest, most controversial programme, and my favourite. It started when a large food manufacturing company offered to finance the planting of a tree for every label that people sent them from a new product. The purchaser received a certificate of appreciation. The response was astounding. One million, seven hundred thousand people mailed in labels and that many trees were planted. Since then, dozens of companies want to become involved in similar programmes. One is purchasing eagle nesting land to donate to a National Forest for protection, and many other ideas are being considered.

The most exciting, I believe, is one to build "Children's Forests." There are relatively small areas that have been devastated by fire, insects, mining, overgrazing, etc. A company furnishes funds, co-operative groups such as youth organizations, school classes, etc. do this work with Forest Service help. Areas are replanted, erosion checked, streams improved, interpretive trails built. The objective is learning through involvement and co-operation. Some question the motives of industry participation. But I believe environmental understanding and improvement can't be an exclusive club or a job, just for the pure-of-heart. One benefit everyone can agree with; a wide variety of people present many new ideas; from these have come- braille trails for the blind, wading and canoe trails, a glassed stream profile for viewing aquatic life at stream bed level, and many other concepts.

Lastly, we are working on a more formal, professional programme that we choose to call Environmental Education.It is directed by employees experienced in teaching and ecology. The focus is on teachers and administrators. It makes use of areas and facilities on National Forests. It welcomes partnerships with other agencies having similar objectives. A process approach is stressed with the philosophy that such education must be interdisciplinary and provide relevant, significant learning experiences. School systems are encouraged to integrate environmental education into all appropriate courses. Environmental work shops employ real problem solving, role playing and simulations. Questioning strategies replace lecturing and only minimum direction and side boards are used. All ages and degress of understanding can be served, since each group establishes its own level of sophistication.

I recently joined a teacher group who examined a local stream. The envolvents included dozens of concerns; pollution, stream life, water uses, volume of water, ownership, legal implications, and social problems. Action projects can obviously evolve from such scrutiny.

In summary then, the Forest Service are pursuing a great many approaches to environmental learning. The effort is no where near adequate, but there are encouraging signs. The best chance of success is, we believe, through co-operation and a determination to reach as many people as possible and by whatever reasonable means comes to hand.

Educators need to seek out the public land manager in candid exchange of counsel and support.

We all have moments of frustration, cynicism and apathy. But environmental understanding is the road to survival. And surviving still beats the alternative.

A SURVEY OF THE ROLE OF ENVIRONMENTAL ORGANIZATIONS IN OUTDOOR EDUCATION

W. John Lamoureux

The organizations listed are non-professional, but specialize in a particular brand of activity within the outdoor environment. The route I have chosen is: What contact does the environmental organization have with school groups at the class level?

We appear to have generations of groups. Naturalists Garden Clubs and Horticultural Societies may represent the older generation with some reluctance to attack new environment problems. "Save the Lakeshore", "Citizens Committe for Pollution Control", represent a new generation who have to exercise considerable self-control to concentrate on one problem when their membership sees a dozen needs for action.

My questions covered two areas:

Area 1. What is the organization doing now?

Area 2. What would its members do if called upon?

Two ideas became clear from this survey:

First: The average teacher within the school system is either not aware of the potential of the environmental societies in their area or are prevented from making use of them because of internal influences.

Secondly: Many societies and associations are difficult to trace and indeed some are transitory. (A check with the Hamilton Board of Education revealed that the Board does not keep a list of environmental societies for teachers to consult.)

The answer seems, that better use could be made of environmental groups and in most cases they are willing to serve.

QUESTIONNAIRE TO ENVIRONMENTAL ASSOCIATION

Citizens Committee for Pollution Control, Sierra Club, Federation of Hamilton Environment Groups, Iroquoia Bruce Trail Club, Good Times Fishing and Conservation Club, Hamilton Naturalists, Save the Lakeshore Association,

Hamilton Garden Club, Mount Hamilton Horticultural Society, are the organizations presented with the following questions:

1. Do your members provide demonstrations or training to school classes?

2. Does your group sponsor contests, competitions, essays, posters, on outdoor subjects to school classes?

3. Do you provide funds for use in environmental teaching projects?

4. Would your members volunteer if called upon to serve as part-time teachers or leaders in outdoor education?

5. Is your group called on by school authorities to advise on environmental matters?

6. Would your group go activist in support of a school class protest about environmental degradation?

7. Would your society allow school groups to visit your lands or private properties to sponsor interest in outdoor hobbies or professions?

THE SCHOOL NEIGHBOURHOOD AS AN EDUCATIONAL RESOURCE

John H. Mann

When planning programmes beyond the classroom, the classroom teacher must be taken into consideration. The natural apprehension about conducting classes beyond the security of the classroom does little to build confidence and a desire to experiment. But, add to this the real concern felt by many teachers about inspections, "red tape" of approval forms, parental permission slips, travel arrangements and the uncertainty as to legal liability beyond the classroom, and we can readily see why many are reluctant to embark upon outdoor programmes.

The September 1972 edition of School Progress magazine has an interesting article entitled:Liability: How's Your Liability Risk for those Out of School Excursions?

However, the climate in the schools is changing. New curricula appear to offer more freedom to the teacher and the role of the inspector as a resource counsellor is being stressed. Insurance is being purchased and"red tape"is minimized because of a growing understanding and trust among teachers and different levels of administration. Teacher training institutions are spending more time on out of class studies and the result of all these changes is a teacher who is more secure and ready to attempt "something new".

Out of school education begins with the child in an environmental experience. (The supporting slides are all topics of study by pupils).

The child's environment is constantly changing just as the child is undergoing changes as he reacts to his environment.

The teacher can, therefore, use environmental studies as a means of implementing the curriculum, and with the child, find a means "of discovering the steps that intervene between the child's present experience and his richer maturity".

Environmental studies can be a way of relating the school program to the child so that it becomes a reality to him and an integral and functional part of his life.

The school yard is an ideal place for the teacher

to start. Both teacher and pupil are secure in this area because it is known to them, and like Linus' Blanket, the school is always there in the event of something unforseen. The teacher may begin in a small way as an extension of the classroom program and the administration need not be greatly concerned because the class remains on the property.

Four content areas that nearly every school yard has to offer would be life, measurement and direction, soil and climate.

Life might be subdivided into animal, bird, insect and plant with the latter two probably most common.

Measurement and direction; estimation may be carried out on the school yard in a number of ways. Children can make a dendrometer and find the heights of objects, and if these objects are trees, estimate the yield in lumber.

A study of direction opens up the sport of Orienteering for the child and this can begin in the school yard.

Mapping may be begun in the classroom and moved outdoors using a simple plane table. Once located the pupil can make the necessary sightings and gather the information he requires. The resulting maps are usually quite accurate.

Every school yard probably has some soil. Fertility studies could be carried out, especially if the children plant a garden. Soil profiles may be examined and, if one is lucky the topography may lend itself to the study of rocks and minerals. Climate studies are possible on every school ground. The children can make many of their instruments, and record data on the temperature, wind, relative humidity and percipitation. This can be complemented by a study of clouds and they could even try to predict the weather.

(Fig. 1) During a study of topics such as these, many other educational values may develop. Skills and attitudes are learned by the teacher and the pupil for this and for future studies Group work possibilities can be explored. Equipment can be developed and built. Motivation for greater challenge will undoubtedly result from a well planned educational experience.

As the pupils and the teacher gain in the areas of knowledge, skills and attitudes, they are ready to branch out in the immediate neighbourhood. This is an area well known to the children since they pass through it daily going to and from school, and they engage in play activities throughout the district after school hours.

THE SCHOOL SITE AS AN EDUCATIONAL RESOURCE

GROUP WORK

formation
techniques
evaluation

T/P

KNOWLEDGE

Skill and
attitudinal
development

T/P

LIFE

animal insect bird plant

CLIMATE

temperature
wind
relative humidity
precipitation
clouds
prediction

SCHOOL SITE

"within the fence"

DIRECTION AND MEASUREMENT

estimation
nature's compass

Orienteering

Mapping

SOIL

profile garden rocks

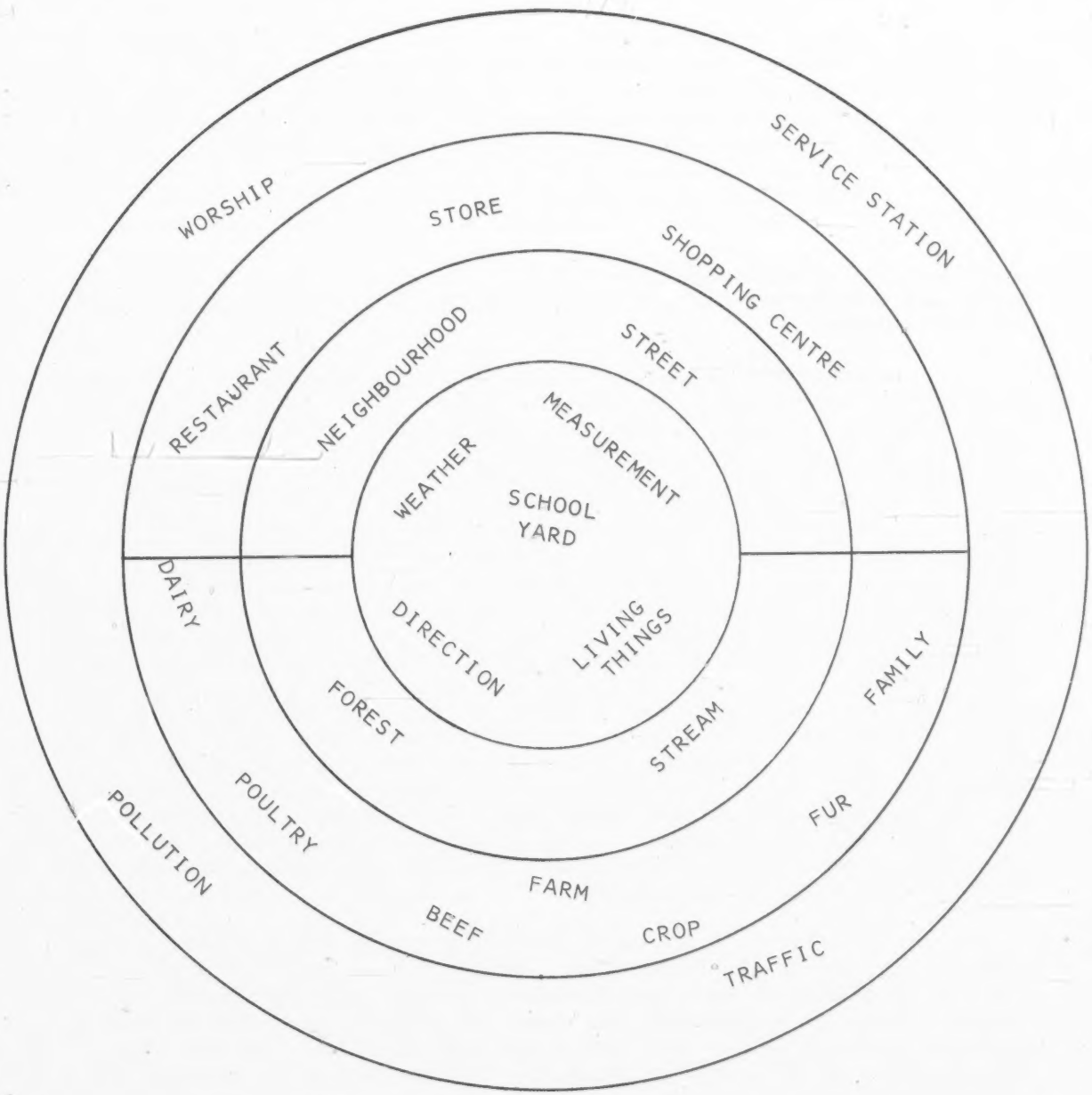
fertility minerals

Development
and
Building
Equipment

T/P

Motivation
For Greater
Challenge

T/P


SCHOOL YARD
WEATHER
MEASUREMENT
DIRECTION
LIVING THINGS
NEIGHBOURHOOD
STREET
RESTAURANT
STORE
SHOPPING CENTRE
WORSHIP
SERVICE STATION
FOREST
STREAM
DAIRY
FAMILY
POULTRY
FUR
POLLUTION
FARM
BEEF
CROP
TRAFFIC

(Figure 2) In an urban area, the children could study such things as the: neighbourhood, street, restaurant store and shopping centre.

In Rural area, the children are accessible to a different environment(Figure 2).

Close to the school, one would likely find forest and stream areas. The farms of the area provide another valuable source of information. Both the urban and rural children could move further afield for such topics as: places of worship, service stations, traffic, and pollution.

They could even cross the imaginary Rural/Urban boundary and study the environment of the other. A worthwhile project for any school, or administrative unit, would be the compilation of a resource inventory of their area. The physical resources can be catalogued with information similar to that shown.

A second valuable resource is the population living within the community. If the children cannot visit a resource many times a resource person can be brought to them.People willing to share their talents can be catalogued for teacher reference. For any learning experience to be worthwhile it must be carefully organized by the teacher. All too often, the field trip is thought of as the entire educational experience when it is really only the smallest portion. (Figure 6). An environmental learning experience may be compared to an hour glass. The sand in the top of the glass (planning) does not show overt action - yet it is essential. Some action or movement is seen as the glass begins to narrow (initiating). The most dramatic movement occurs at the smallest part of the glass. This is the "beyond classroom" phase - the visit or trip which comprises only a small portion of the study. The action continues as the sand piles up (processing of data and follow-up). This "piling" is similar to the acquisition of new knowledge, skills and attitudes by the child and the teacher. Once acquired, the process may be repeated from a new, richer base, just as the hourglass may be inverted to begin a new cycle.

I have with me some activity cards and slides of the work which developed from them. While these studies were not carried out within walking distance of <u>any one</u> particular school, they do represent the type of educational opportunities present in most urban and rural neighbourhoods. As you see the results of the pupils studies, I hope you will notice the interdisciplinary qualities that emerge.

FIGURE 5

AREA	ADMINISTRATION	METHODS
Select Visit(s) Evaluate Make appointments Resource people	Permission Transportation Supplies Timetable Safety Sanitation Alternatives Communication Approval	Group formation Assignment of inquiry areas Resources Equipment Special skills
		PLANNING
Develop interest and motivate Form groups (class - individual) Inquiry (T or T/P or P) Group planning - what and how? Collection and recording techniques		INITIATING
Data Collection (beyond class) observe - sketch - interview - film - tape		DEVELOPING
Data processing (in class) Selection - organization - pattern identification Research - relationships generalizations noted Communication(s) - Creativity		DEVELOPING
Sharing of findings Clarification of ideas (T and P's) Understandings - broadened/deepened (T) Research Synthesize (T and P) Evaluate (T and P)		FOLLOW - UP
NEW AREAS FOR STUDY		

OUT - OF - CLASSROOM LEARNING EXPERIENCE

PLANNING

INITIATING

(beyond classroom)

DEVELOPING

(in classroom)

FOLLOW-UP

With careful exploration and planning, a teacher can turn the child's neighbourhood into a fascinating place to learn. Once a child has begun to identify his own life style, the study of other cultures will be more meaningful to him, because he will have a basis for comparison.

Just as any long and interesting journey must start with the first, short step, environmental studies can begin with the first short step out of the classroom and into the school yard.

INSERVICE EDUCATION PROGRAMMES

Speakers: Dorothy Walter, Lloyd Fraser, Bob Houston

The session started with a series of slides relative to the programmes being described by each speaker.

What's Going On?

Inservice offered by the Ministry. Text from Dorothy Walter.

Inservice offered by schools and boards. Text from Lloyd Fraser.

Inservice which has been offered through Faculty of Education & Conservation Authorities, and Ministry of Education courses. Text from Bob Houston.

From the general discussion which followed the areas of interest which emerged were:

- there is a need for skill courses at various levels of proficiency at a relative time.
- there is a need to have courses that would be accepted by universities so that they could be applied to up-grading and change of category. San Francisco State credits off-campus courses even from other states.
- local inservice courses should endeavour to draw on the skills and talents of the group itself as related to their local needs.
- Ministerial authorities consider that Outdoor Education has an integrated base and therefore this concept should be embraced within a particular discipline.

IN-SERVICE PROGRAMMES OFFERED BY THE MINISTRY

Dorothy Walter

The Ministry, in this context, is the Community & Social Services. The specific Branch is Youth and Recreation. Maybe the only other thing to add is that it is not the Ministry of Education.

The in-service programmes on which I'd like to elaborate are offered at the O.C.L.C., a residential centre, about 23 miles from here. It accommodates approximately 170, plus a maintenance support staff, in cabins.

Here, I think, it is important to clarify that the in-service programmes developed through responding to an expressed need and a concept of making best use of a beautiful well-equipped facility.

We call this location, familiarly, Bark Lake. As with other camps in Ontario, such as Kandalore, Tawingo, and Richildaca, it is booked by school groups in May, June, September and October. Resource staff connected with the Centre may or may not be asked to give assistance in planning and implementing the programmes of these school groups.

How did a government agency get into the business of in-service education? At the O.C.L.C., we had been offering during July and August, very intensive leadership development and skill development programmes for teen-age camp counsellors.

With the growing awareness of the benefits of outdoor education programmes, we felt we could relate our philosophy of leadership and skill development to the high school students where these programmes were emerging. Four years ago, we set up a 2 week course in August, and tried to emphasize to the schools that those attending should be used to give leadership in present outdoor education experiences. We were even naive enough to think these students might affect the development of programmes in their own schools.

This programme had only been offered once when teachers began to contact us. "If you are supporting outdoor education, why not give us the same opportunity as offered to our students?"

Our role, as a Branch, is to try to respond to

expressed needs,so three years ago we established what is called, academically, "Course for Teachers: Skills in Camping and Outdoor Education." Let it be understood that this course, other than in the informal learning which takes place when individuals meet and begin to talk, is just what it says it is. If teachers would like to participate in an experience where they can learn some skills of the out-of-doors, under the leadership of skilled staff, Bark Lake has that to offer.

Before I talk about programme content, I think it is interesting to note that this course has not been recognized as a credit course. There is only a certificate of attendance given on completion, and the teachers have to give up vacation time (the 10 days before the Labor Day week-end); so those who attend are really "keeners". Many more school boards, this year, subsidized the registration cost and encouragement to attend, in this form of monetary support, is beginning to come from outdoor education co-ordinators in a board. Enrollment is slightly higher from elementary level teachers.

The programme, initially, was extremely structured. We time-tabled everyone into classes in canoeing, orienteering campcraft, crafts and nature. We offered some recreational time; we had guest speakers after each lunch; we had interest groups in the evenings, and we laid on all manner of traditional camp activities.

We are great believers in asking for evaluations at the end of a course, and we build, as much as possible, on those comments made by actual participants. As a result, we are constantly incorporating changes. Canoeing, orienteering, campcraft, and nature are major subjects. Crafts, archery, swimming, geology and sailing are choice. Each day one group is on a cook-out. Interest groups are offered twice each evening and range over topics which the participants have requested plus additional areas of staff expertise.

Some of the greatest learning comes, however, from the informal meetings and exchanges that take place. There is also positive follow-up when the total resources of the group are used by the teachers returning to their school area and contacting those from the course for workshops, activities, resources, etc.

Do we have any regrets about the course? We haven't yet been able to respond to the constant request from teachers to have an "advanced" course. But the positive results are that we are able to help give breadth of meaning to outdoor

education, and to help groups of educators feel more at home in the out-of-doors.

IN-SERVICE PROGRAMS IN OUTDOOR EDUCATION

Lloyd Fraser

Before starting an In-service Program in Outdoor Education it is necessary to decide on a fundamental philosophy which will guide the program.

For the North York Board of Education three basic decisions were made:

(1) There would be no program established across the Borough, but rather, schools would be encouraged to develop their own programs.

(2) The bulk of the instruction would be carried by the classroom teacher rather than by a group of specialist teachers.

(3) Outdoor education staff would provide support for school programs.

This approach requires a fairly extensive professional development program, because most teachers have had little or no contact with outdoor education either during their professional training or during their own school days. As a result, courses of various types have been utilized.

A. 1 to 100 hours

1. A one hour orientation to an outdoor site with program discussion.

2. Skill clinics of 2 to 4 hours duration after school.

3. Weekend workshops in a residential situation.

4. 100 hour course for Department of Education credit.

B. Defining the Audience

Most courses are open to a broad group and are advertised throughout the school system in a booklet distributed twice per year. Some courses invite participation by business staff, maintenance

staff, parents, trustees, spouses, and sometimes even families. Some courses, such as "the 100 hour credit courses" are open to all teachers, including the surrounding municipalities. Most courses do not aim particularly at either elementary or secondary schools.

At times programs are set up for select groups with a common goal such as:

(1) The staff of a single school or family of schools.

(2) Principals

(3) Consultative staff.

(4) The heads and chairmen of Science, Physical Education or Geography

C. Variety of Programs

It is necessary to adapt courses for various purposes which best fill the needs of a certain group. Some programs deal in skills, others in experiences, and others in content. Some deal in all three areas.

A USEFUL FORMAT.

(1) When time permits it is best to start by providing teachers with experiences which will broaden their own background. (2) Then they should be exposed to content by a knowledgeable person in various areas of study, such as ornithology, astronomy, geology, entymology, rock climbing, etc. (3) The third step is to show the methodology for trans lating the experiences and content into the school class program for children.

IN-SERVICE OFFERED BY FACULTIES OF EDUCATION AND CONSERVATION AUTHORITIES, AND THE MINISTRY OF EDUCATION

R.A. Houston

Looking forward from 1968, one realizes that considerable effort and concern has been shown by educational institutions, in the ensuing years, to provide in-service for educators interested in Outdoor Education. During that year several meetings were held which enabled people from a diversity of backgrounds to discuss common concerns related to the upsurge in teacher utilization of the out-of-doors.

Norm Massey, Assistant Superintendent of Education, Curriculum Branch, Department of Education toured existing provincial programmes and compiled Curriculum Bulletin #11, April 1969, which produced an awareness on the part of the provincial educators to the variety in existing "Education Outside the Classroom." Recognizing a need to develop outdoor programmes with a broad base the Department of Education organized an academic oriented Overseas Summer Course in 1969. Under the guidance of J.G. Davis, Superintendent of Education, Curriculum Branch, some 30 elementary and secondary teachers participated in a 5 week programme at British Field Centres at Orielton, near Pembroke, Pembrokeshire, and Malham Tarn, near Settle, Yorkshire. The middle week was optional, but many participants ventured to other Centres in England and Scotland.

That same summer (1969) the first co-operative outdoor programme sponsored jointly by the College of Education, (University of Toronto) and the Metropolitan Toronto and Region Conservation Authority was held at the Albion Hills Outdoor Centre (near Toronto). This resident academic - recreology approach to summer courses enabled participants to draw on a wide range of expertise from university and conservation authority personnel. The programme, well received, has been offered each summer to secondary and elementary teachers. The theme "Man and His Environment" has been tied in to the Bachelor of Education degree. Currently, it is being offered to lay persons as well, with Letters of Attendance, Bachelor of Education credit or University credit being extended to the participants.

In the summer of 1970, the Department of Education offered a recognized resident summer course relevant to outdoor education at the Claremont and Albion Hills

Conservation Centres. It was recognized that Boards of Education could offer Winter Courses particular to the needs of their teachers, and encouragement was provided for them to do so. No resident outdoor education summer course has been offered by the Department since 1970, but many of the related disciplines have included outdoor education, tripping and residence experiences in their programmes.

The need for skills development and academic training in areas related to the out-of-doors continues to exist. Teacher training is currently stressing degree subjects, and this trend is having its effect on professional development courses. Some colleges of education and universities are combining the academic aspects of degree courses with the professional development needs of teachers. This trend should provide the necessary course content to meet degree requirements and still enable the teacher-participant to develop skills and methods particular to outdoor education.

It is apparent, that during the transitional period in teacher-training, teachers must make known their needs and feelings to the appropriate educational institute. The single pursuer might find that he is "a voice crying in the wilderness". It is important, that professional organizations assist their memberships by manifesting their needs in a concerted voice to the appropriate authority.

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Programme
FOCUS: "WELCOME TO ONTARIO"
Thursday, September 28, 1972

10:00 a.m.	C.O.E.O. Executive Meeting Meeting of Conference Planning Committee and Conference Staff
12:15 p.m.	Lunch (Ontario Forest Technical School – staff only)
1:00 p.m.	Registration opens Please note: ALL registrants must report to the Registration Desk, Administration Building, at the Ontario Forest Technical School. – Assignment of Accommodation – Recreational Activities – Tours of Sites
4:00-5:30 p.m.	"Lets Get Aquainted"
5:30 p.m.	Buffet Dinner
7:00 p.m.	An All Conference Session at the Ontario Forest Technical School. – Chairman's Remarks – Introduction of Distinguished Guests – Keynote Address "OUTDOOR EDUCATION AND THE FUTURE OF MAN"
9:00 p.m.	Social Programme "WELCOME TO ONTARIO" – An Informal Campfire

Note: Locations will be posted at meal times for all sessions and activities.

Programme

FOCUS: "OUTDOOR EDUCATION – WHAT FOR WHOM"

Friday, September 29, 1972

8:00 a.m.	Breakfast
8:55 a.m.	TOUR – QUEST FOR HERITAGE (Tour Assembly Areas)
9:00-10:15 a.m.	1. OUTDOOR EDUCATION FOR HANDICAPPED CHILDREN Ed Alexander – Macomb County School District, Michigan Sharon Greer – North York Board of Education, Ont.
	2. OUTDOOR EDUCATION FOR THE CULTURALLY DEPRIVED CHILD Ronald Riggins – Bradford Woods Outdoor Education Centre, Indiana
	3. OUTDOOR EDUCATION WITH PRIMARY DIVISION STUDENTS Louise Donaldson – Oregon Public Schools, Illinois Gordon Savoy – Atikokan Board of Education, Ontario Audrey Wilson – Durham County Board of Education, Ontario

4. SCHOOL ADVENTURE CENTRED PROGRAMMES
David Bates – Lakehead University, Ontario
Sharon Goodyear – North Carolina Outward Bound School

5. DAY CENTRE PROGRAMMES
David Coburn – MacSkimming Science School, Ontario
Jim Wood – Metropolitan Toronto & Region Conservation Authority (Cold Creek Field Centre)

6. RESIDENTIAL FIELD CENTRE PROGRAMMES
Oswald Goering – Lorado Taft Field Campus, Illinois (Germany)
Peter Herlihy – Drapers' Field Centre, Wales (Great Britain)

7. GOVERNMENT PARKS SERVICES PROGRAMMES
Bill Charlton – Ontario Ministry of Natural Resources
Ron Nagel – Michigan Department of Natural Resources

8. OUTDOOR EDUCATION: ITS PROMISING FUTURE
George Donaldson – Northern Illinois University
Jack Passmore – Ontario College of Education
Julian Smith – Outdoor Education Project, AAHPER
Kirk Wipper – University of Toronto, Ontario

10:45-12:00

9. DAY CENTRE PROGRAMMES
Burton S. Brody – Outdoor Learning Laboratory, New York
Ralph Ingleton, Forest Valley Outdoor Education Centre, North York, Ontario

10. RESIDENTIAL FIELD CENTRE PROGRAMMES
Ted Currie – Toronto Island School, Ontario
Jack MacKenzie – Regina Board of Education (Sweden)
Ralph Shaw – McQueen Lake Centre, British Columbia

11. GOVERNMENT PARK SERVICES PROGRAMMES FOR OUTDOOR EDUCATION
Nolan O'Neil – U.S. Forest Services, Washington, D.C.
Grant Tayler – National & Historic Parks Branch, Environment Canada

12. OUTDOOR EDUCATION PROGRAMMES FOR DELINQUENT YOUTH
Robert Davies – Project D.A.R.E., Britt, Ontario
Allen Lockman – Traverse City Area Schools, Mich.
Frank Dobias – Guelph Correctional Centre, Ont.

13. PROGRAMMES SPONSORED BY CLUBS AND ASSOCIATIONS
Dal Hall – Canadian Forestry Association, Ottawa
Ray Lowes – Bruce Trail Association, Hamilton, Ontario

14. SCHOOL ADVENTURE CENTRED PROGRAMMES
Jerry DeFries – Outward Bound, Colorado
John Hasell – Outward Bound in Canada

1:00 p.m. TOURS
QUEST FOR VENTURE
MEETING ADVENTURE
MEETING LOCAL HISTORY
MEETING THE CANADIAN SHIELD
(These trips will be leaving from the Tour Assembly Areas promptly)

1:30-4:30 p.m. Exhibits Open for Viewing

1:30-3:15 p.m. FIELD STUDY SESSIONS
1FS Pioneer Life
2FS Field Recording Techniques
3FS Survival Foods

SKILL CLINICS
1SC Rock Climbing
2SC Archery
3SC Canoeing
4SC Sailing
5SC Native Crafts

SEMINAR DISCUSSIONS

1SD HOW TO HELP THE UNIQUE CHILD?
A sharing of exerpeinces and ideas by participants involved in outdoor education programmes for the mentally, physically, perceptually, culturally, emotionally unique child.

2SD WHAT'S IN IT FOR THE YOUNG CHILD?
A discussion of programmes for primary grades whether in the city, suburbs, rural or remote areas.

3SD HOW DO WE CHALLENGE?
A discussion of leadership, programmes, and personal growth opportunities for the teenager or young adult.

4SD HOW TO START 'EM AND KEEP 'EM
A discussion of present programmes and problems in beginning, maintaining and further developing day and residential centres.

5SD WHAT CAN WE DO?
A discussion of roles of government departments and resource organizations in outdoor education programmes.

3:15-4:30 p.m. Continuation of Skill Clinics and Field Study Sessions.
– Recreational Equipment Available for Personal Use

4:30 p.m. Bar Opens

5:30 p.m. Dinner

7:30 p.m. PHOTOGRAPHY SALON
Winners to be announced at this time.

8:30 p.m. "HERITAGE NIGHT"
An All Conference Special Event at Camp Kandalore

FOCUS: "OUTDOOR EDUCATION – WHERE AND BY WHOM"

Saturday, September 30, 1972

8:00 a.m. Breakfast

8:55 a.m. **TOURS**
QUEST FOR CAPTURED YESTERYEARS
QUEST FOR MINERALS
QUEST FOR NATURE (9:30)
(These trips will be leaving from the Tour Assembly Areas promptly)

9:00-10:15 a.m.

15. PROFESSIONAL PREPARATION IN OUTDOOR EDUCATION
Peter Herlihy – Drapers' Field Centre, Wales
Bob Pieh – Queen's University, Ontario
Irwin Rosenstein – New York State Education Department

16. SCHOOL SITE UTILIZATION AND DEVELOPMENT
Don Hollums – Bloomfield Hills, Michigan
Peggy Miller – Michigan State University

17. OUTDOOR EDUCATION AND CURRICULUM DEVELOPMENT
Charles Blackman – Michigan State University
Bill Babcock – Ontario Teachers Federation

18. INSERVICE EDUCATION PROGRAMMES
Lloyd Fraser – North York Board of Education, Ont.
Bob Houston – Muskoka Board of Education, Ont.
Dorothy Walter – Ontario Camp Leadership Centre, Bark Lake

19. COORDINATION OF RESOURCES
Gail Griffith – ES/ESTPP, Boulder, Colorado
Ed Landin – Minnesota Environmental Science Foundation

20. CAMPS AS OUTDOOR EDUCATION CENTRES
Speakers to be announced

21. WHAT'S HAPPENING? (Open Session)
– in Quebec, Claude Cousineau, University of Ottawa
– in Ontario
– in Michigan
– in New York

22. RESIDENTIAL FIELD CENTRE PROGRAMMES
Jim Wood – Metro Toronto & Region Conservation Authority (Albion Hills Field Centre)
David Loewen – Camp Arnes, Manitoba
Vincent Cyphers – University of Northern Colorado

23. THE ROLES OF DEPT'S OF NATURAL RESOURCES IN OUTDOOR EDUCATION
Bill Barkley – Canadian Wildlife Service
Bill Charlton – Ontario Ministry of Natural Resources
John Paulk – Tennessee Valley Authority

24. PROFESSIONAL PREPARATION IN OUTDOOR EDUCATION
Clarke Birchard – Bruce County Board of Education
Don Hammerman – Lorado Taft Field Centre, Illinois
Morley Lee – University of Manitoba

25. SCHOOL SITE UTILIZATION AND DEVELOPMENT
John Mann – Stratford Teachers College, Ontario
Peggy Miller – Michigan State University
Jean Wansbrough – Metropolitan Toronto & Region Conservation Authority (Claremont Conservation Field Centre)

26. OUTDOOR EDUCATION AND THE CURRICULUM IN ACTION
David Bates – Lakehead University, "Natural Resources Technology", Ontario
Ed Hallewick – North York Board of Education – "Ecography", Ontario

27. THE ROLE OF ENVIRONMENTAL ORGANIZATION IN OUTDOOR EDUCATION
James Coats – Ontario Forestry Association
Leslie Keith – Pollution Probe, Ontario
John Lamoureux – Royal Botanical Gardens, Hamilton, Ontario

28. OUTDOOR EDUCATION FOR ENVIRONMENTAL QUALITY
David Booth – Ontario Ministry of the Environment
Bill Hammerman – California State University

12:30 p.m. Lunch

1:15 p.m. **TOURS**
MEETING NATURE – Tour Assembly Areas

1:30 p.m. MEETING THE MARSH – Tour Assembly Areas

1:30-4:30 p.m. Exhibits Open for Viewing

1:30-3:15 p.m. FIELD STUDY SESSIONS
4FS Photographic Techniques
5FS Freshwater Ecology
6FS Pioneer Life
7FS Field Sketching

SKILL CLINICS
6SC Orienteering
7SC Shooting Sports
8SC Adventure Program Activities
9SC Casting
10SC Canoeing
11SC Sailing

SEMINAR DISCUSSIONS
6SD LET'S BRING 'EM UP RIGHT
A discussion of teacher preparation and in-service programmes.

7SD WHY DO WE GO OUTSIDE?
A discussion of goals and techniques in curriculum development.

8SD WHAT DO WE DO FOR LEISURE TIME?
A discussion of the role of recreation and camps' usage in outdoor education.

9SD WHERE DO WE GO FIRST AND WHO CAN HELP US?
An exchange of ideas of local areas, community resources, private and governmental roles in beginning outdoor education programmes.

10SD WHERE DO WE GO LATER AND WHO CAN HELP US?
A discussion of the use of public land and the role of private and government organizations in setting up continuing programmes.

3:15-4:30 p.m. Continuation of Skill Clinics and Field Study Sessions – Recreational Equipment Available for Personal Use

4:30 p.m. Bar Opens

5:30-7:30 p.m. "Meet the Authors"

8:00 p.m. "INTERNATIONAL NIGHT – BARBEQUE"
An All Conference Special Event at Camp Kandalore

Programme

Sunday, October 1, 1972

7:30 a.m. Breakfast

8:30-9:30 a.m. All Conference Meditation, Chapel Island, Camp Kandalore

9:30-10:30 a.m. Chairman's Remarks
All Conference Summary Address – "A CALL FOR ACTION"
Dr. Harold Sponberg, President of Eastern Michigan University

10:45-12:00 Task Force Meetings
C.O.E.O. Member Meeting

12:30 p.m. Lunch

SPECIAL THANKS

The Conference Planning Committee expresses its special thanks to the following organizations and people who assisted in the conference arrangements and in the preparation of the proceedings. Without their valuable contribution, the conference would not have been the success that it was.

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Back Cover Picture

The award winning slide from the Photography Salon. Submitted by Bruno Poirier, entitled "At Sundown".